READY FOR ANYTHING

YAESU

VX-7R

FT-817

FT-897

FT-8900R

AES®

AMATEUR ELECTRONIC SUPPLY

HAM RADIO CATALOG

FALL/WINTER 2002

5710 W. Good Hope Rd.
Milwaukee, WI 53223
414-358-0333
1-800-558-0411
Fax 414-358-3337
Service 414-358-4087
milwaukee@aesham.com

28940 Euclid Ave.
Cleveland, OH 44092
440-585-7388
1-800-321-3594
Fax 440-585-1024
cleveland@aesham.com

621 Commonwealth Ave.
Orlando, FL 32803
407-894-3238
1-800-327-1917
Fax 407-894-7553
orlando@aesham.com

4640 South Polaris Ave.
Las Vegas, NV 89103
702-647-3114
1-800-634-6227
Fax 702-647-3412
lasvegas@aesham.com

Store Hours
Mon–Fri • 9am to 5:30pm
Saturday • 9am to 3pm

1-800-558-0411
www.aesham.com

It All Starts At The Microphone!

Quality Audio For The Broadcast Studio...

THE CLASSIC
Dual Element Broadcast Microphone

The Heil CLASSIC contains the new Heil 'Studio One' wide range broadcast element and your choice of our famous HC-4 DX element, the HC-5 element or the Heil 'iC' ICOM element. A small element selector switch and our 'soft touch' PTT switch are on the back panel.

- Frequency Range is 50 - 18 kHz
- Cardiod pattern without proximity effect
- Complete with YOUR call letters on the flag
- Removable base for inverted boom mounting
- An exact replica of a 1930 broadcast microphone (no plastic copy here, folks)

THE GOLDLINE
Studio Microphone

The 'Goldline' dual element studio microphone, another innovative product from Bob Heil was created specifically for broadcast quality. Smooth articulate audio with a +4dB peak @ 2 kHz gives the Goldline excellent voice articulation along with it's "big bottom" low end that is all so important for producing a well balanced studio quality transmitted signal.

*Features the Heil full range broadcast element and your choice of the HC-4 or the HC-5 Communications element
- 50 Hz - 16 kHz frequency response
- Shown with optional SM-1 shock mount

To The Rarest DX Location, Or Mobile Installation!

THE PRO SET PLUS! Dual Mic Element Headset

Contains our HC-4 DX and the HC-5 rag chew elements. Also available with the new Heil 'iC' ICOM element. Highly efficient acoustically tuned speaker cavities. Strong ¼" stud speaker mounting swivels. Speaker Phase Reversal Switch allows you to change the sound field between the two speakers. An amazing feature - exclusive to Heil PRO SET PLUS! "There is NOTHING on the market like this new Competition Headset!"

For more information, visit www.heilsound.com

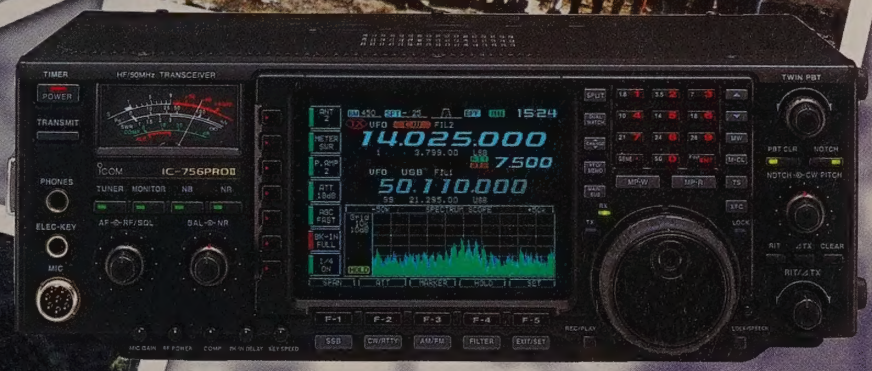
THE TRAVELER

Unique new lightweight single headset system using the high Performance Heil 'iC' electret element.

- UP/DOWN and PTT in line switches
- Various 3' interface cables allows use on virtually any transceiver and some HT units
- Left or Right boom position

20 Years Of Defining Amateur Radio Communications.

IC-756PROII



The '756PROII transceiver has all the features today's DXer needs to be competitive. But don't take our word for it - ask the guys who use them. It's no wonder the world's best DXers choose ICOM. Find out more about the 'PROII at your AES dealer today.

FREE PS-125!
See your AES dealer for details

IC-756PROII. The best just got better.

HF/6M • 100W • All Mode • Enhanced Rx • Dual Watch • 32 Bit IF-DSP • Independently Selectable IF Filter Shapes For SSB & CW • Variable Level Noise Blanker • Auto & Manual Notch Filter • Twin Passband Tuning • Improved 5" TFT Color Display • CW Memory Keyer • VOX • Auto Antenna Tuner • SSB/CW Synchronous Tuning • External Control For Voice Memory & Memory Keyer • Adjustable RIT Clear • 1/4 Tuning Steps In Digital Mode

Heard it. Worked it. Logged it. Again!

"ICOM supplied a 'PROII for a recent DXpedition. It worked so well, that I bought TWO as soon as I returned home. Others on the DXpedition bought them, too. I can't believe the performance of the receiver, particularly on the low bands! The pre-amp REALLY works without distortion. The adjustable filters and twin passband tuning are a dream and so easy to operate. The digital noise reduction is truly amazing. You can't get "lost" with the operation of the controls....it's simple to back out a level. I've operated literally every HF radio made in the last 30 years, contesting and DXing, and the 'PROII is in a class all by itself! We have a six ham family and we all love our new PROII's!!! The "fun" is back into ham radio more than ever now."

-Glenn Johnson WØGJ , A50A WW SSB Contest

The IC-756PROII's worked great - we ran them for 11 days, non-stop, ...5 radios, 80,000 QSO's... all bands 160 through six meters... SSB,CW, RTTY, and PSK31! The built-in antenna tuners nice... we could run antennas on other bands... the 40m vertical on 15m... the 30m vertical on 10m... . Temps always above 80...sometimes 110 deg in the operating tents. Humidity above 90% all the time! Radios performed flawlessly. Everything you could want for operating convenience in one box. When you are on the receiving end of the entire world calling you in a pileup, it helps to have a top-notch rig to work them all! I liked the radio so much, I bought one and brought it home!

-Bob Voss N4CD, TI9M DXpedition

I was very impressed with the reliability of the IC-756PROII transceivers and IC-PW1 linear amplifiers, given that our environment on the island was challenging in some respects. At the CW site, there was so much talcum-powder fine volcanic ash blowing around that the radios, amplifiers, and everything else in the tent was covered with a thick layer of dust. I was especially concerned about the 'PW1s given that the fans were running almost continuously, pulling in this dust. We also had a troublesome generator which caused large fluctuations in voltage and frequency (we eventually replaced it). Even with these conditions, the ICOM equipment ran perfectly for 10 days, 24 hours per day. I'd feel confident taking your equipment to any location on the planet.

-Michael Mraz N6MZ, XRØX DXpedition

THE ICOM ADVANTAGE

TRINDADE ISLAND PWØT OVER 54,000 QSO'S

WORLD RECORD BAKER HOWLAND ISLANDS KIB OVER 96,000

COCOS ISLAND TI9M OVER 80,000 QSO'S

SAN FELIX ISLAND XRØX OVER 68,000 QSO'S

KINGDOM OF BHUTAN A50A CQ WW SSB CONTEST

Find out more
www.icomamerica.com

ICOM®

©2002 ICOM America, Inc. 2380 116th Ave NE, Bellevue, WA 98004, 425-454-8155. The ICOM logo is a registered trademark of ICOM, Inc.
All specifications are subject to change without notice or obligation. PROIIDXAES802

AES CLOSEOUTS ... 26, 27
AES INFO/ORDER BLANK ... 147-151
AES MANUFACTURER INFO ... 152
AES PRICE GUIDE (by mfg. A-Z) ... 3-27
AES USED & DEMO EQUIPMENT ... 28, 29

MANUFACTURER

ADI COMMUNICATIONS ... 43, 51, 61, 70
AIM ELECTRONICS ... 78, 132
ALINCO ... 43-45, 51, 52, 62, 67, 70
ALPHA DELTA ... 99-101
AMECO ... 77, 86, 89, 135
AMERITRON ... 81, 134, 135
ANTENNA SPECIALISTS ... 122
ANTENNA SUPERMARKET ... 128
AOR ... 32, 128, 144
ARRL (QST) ... 89-92
ARROW ANTENNA ... 117
ARTSCI ... 143
ASTATIC ... 83
ASTRON ... 78
B&W ... 122
BMI ... 93
BELDEN ... 131
BELMERIT ... 72
BENCHER ... 75, 86
BOUNTY HUNTER ... 146
BUCKMASTER ... 91
BUSHNELL ... 27, 95
BUTTERNUT ... 129
CQ ... 90, 92
CABLE X-PERTS ... 131, 132
CASTLE RIDGE ... 131
CELESTRON ... 92, 96, 97, CIII
CENTAUR ELECTRONIC ... 132
CHANNEL MASTER ... 141
COAX SEAL ... 135
COAXIAL DYNAMICS ... 72
COBRA ... 33, 34
COMET ... 103-105, 129, 135
COMMUNICATION OUTFITTERS ... 142
COMMUNICATIONS SPECIALISTS ... 77
CONNECT SYSTEMS INC (CSI) ... 93
CREATIVE SERVICES SOFTWARE ... 88, 90
CROSS DEVICES (CRS) ... 135
CUSHCRAFT ... 106-116
CUTTING EDGE (POWER PORT) ... 142
DAIWA ... 72, 75, 134
DAVIS ... 40
DCI ... 86
DC SALES ... 134
DIAMOND ANTENNAS. 72, 78, 118-121, 128, 135
DRAKE ... 30
ECG ... 141
EASY-UP ... 137
EMERSON ... 41, 94, 145
GARMIN ... 38, 91
GE ... 144
GEOCHRON ... 92, 93
GLEN MARTIN ENGINEERING ... 137
GROTHE ELECTRONICS ... 145
GRUNDIG ... 32
HAL ... 88
HAMCATION ... 37
HARGER ... 136
HEIL ... CII, 84, 85, 90
HUSTLER ANTENNAS ... 33, 123-125
HY-GAIN ... 129, 140
ICOM 1, 33-36, 39, 42, 46-49, 51, 52, 55, 62, 67, 68, 70, 80, 134
IDIOM PRESS ... 75
INTERNATIONAL ANTENNA (IAC) ... 129
ISOTRON ... 128
K-COM ... 86
KANTRONICS ... 88, 90
KENWOOD 34, 43, 48, 50, 51, 53-55, 59, 62, 68-70, 83
KOSS ... 83
LDG ELECTRONICS ... 134
LAKEVIEW CO ... 102
LARSEN (RADIALL) ... 33, 126, 127
LIGHTWAVE ... 146
LOGSAT ... 91
M2 ANTENNA SYSTEMS ... 129, 130, 141
MFJ 32, 59, 62, 69, 70, 73-76, 79, 82, 85-87, 93, 102, 131, 133-135, 143, 144
MAGELLAN ... 39, 91
MAHA ... 80, 143
MALDOL ... 104, 105
MAXON ... 34
MEADE ... 98
MIDLAND ... 40
MIRACLE ANTENNA ... 122
MIRAGE ... 71, 80, 82
MOTOROLA ... 34, 83
NCG ... 103-105, 143
NIGHT OWL OPTICS ... 98, CIII
NORCOMM ... 77
OREGON SCIENTIFIC ... 41, CIII
ORLANDO HAMCATION ... 37
OUTBACKER ... 100
PACCOMM ... 88
PALOMAR ENGINEERS ... 133, 143
PAR ELECTRONICS ... 86, 122
PENETROX ... 135
POLYPHASER ... 90, 136
POLICE CALL ... 92
PREMIER ... 83, 117
RCA ... 94
RF INQUIRY ... 86
RF PARTS ... 72, 78, 118-121, 128, 135
RADIALL/LARSEN ... 33, 126, 127
RADIO AMATEUR CALLBOOK ... 91
RANGER ... 69, 70
QRZ HAM BOOK ... 91
SGC ... 56-60, 62, 80
SAMLEX AMERICA ... 78
SANGEAN ... 30
SEQUOIA ... 90, 91
SHAKESPEARE ... 130
SHURE ... 83
SMILEY ANTENNA ... 117
SOLARCON ... 33, 129
SONY ... 31
SUPER ANTENNAS ... 122
SUPERIOR ACCESSORIES ... 145
SYNTHETIC TEXTILES ... 130
TE SYSTEMS ... 80
TERK ... 94
TIMEWAVE/AEA ... 87, 88
TRIPP LITE ... 78
TV GUARDIAN ... 94
US TOWER ... 139
UNI-SOLAR ... 142
UNIDEN ... 33, 36, 42
UNIFIED MICROSYSTEMS ... 77, 144
UNIVERSAL TOWERS ... 138
VALOR ... 135
VANCO ... 72, 83, 142
VAN GORDEN ... 128, 132
VECTRONICS ... 82, 86, 133, 144
VELLEMAN ... 72
VIBROPLEX ... 77
W2AU (UNADILLA) ... 132
W5YI/WEST ... 90
WA1FFL ... 133
WAHL CLIPPER CORP ... 145
WELLER ... 145
WEST MOUNTAIN RADIO ... 88, 144
WILSON ... 33
WINEGARD ... 93, 131
YAESU .. C1, 30, 42, 50-52, 60-66, 69-71, 80, 83, 135, 141, 146

PRODUCT TYPE

ATV ... 59
AIRCRAFT RADIOS ... 42
AM/FM PORTABLE RADIO ... 144
AMPLIFIERS & ACC ... 56, 64, 80, 81, 82
ANTENNAS ... 33, 94, 99, 100, 102, 103, 105, 106-120, 122, 123-130
ANTENNA ACCESSORIES 58, 99, 100, 104, 105, 121, 122, 124, 125, 127, 129, 130,132, 133, 134
ANTENNA TUNERS 32, 43, 57, 58, 81, 82, 101, 133, 134
ANTENNA WIRE ... 131, 132
BALUNS ... 132
BATTERIES ... 73, 143
BEACON MONITOR ... 144
BINOCULARS ... 95, 98
BOOKS/SOFTWARE ... 88, 89, 90, 91, 92
CB EQUIPMENT ... 33
CW ID ... 77
CARRYING CASES ... 142, 143
CHARGERS ... 143
CODE PRACTICE ... 76, 77, 89, 90
CONTEST CARDS ... 144
CIGARETTE LIGHTER ADAPTERS ... 142
CLOCKS ... 41, 93
COMPASSES ... 41
COAXIAL CABLE/LADDER LINE ... 131, 132
COAXIAL SWITCHES 75, 99, 10, 120, 134, 135
COMPARISION CHARTS ... 51, 62, 70
DSP/NOISE REDUCTION/SPEECH ENHANCER 32, 86, 87, 144
DUMMY LOADS ... 75, 81, 120
DUPLEXERS/TRIPLEXERS ... 120, 135
ENCODERS/DECODERS ... 77
FAMILY/PERSONAL RADIOS/GMRS ... 34, 38
FILTERS ... 86
GPS UNITS/SOFTWARE ... 38, 39
HEADPHONES/EARPHONES ... CII, 83, 85
HF RADIOS ... 1, 45, 52, 53, 54, 55, 56, 59, 60, 61, 64, 65, 66
HT 2M ... 43, 44, 45, 46, 48, 50, 54
HT 6M ... 43
HT 220MHz ... 43, 44, 45
HT 440MHz ... 43, 44, 45
HT MULTI-BAND ... 44, 45, 46, 47, 48, 50, 52, 53, 54, 63
KEYERS/PADDLES/READERS ... 75, 76, 77,101
KITS ... 144
LICENSING MATERIAL ... 89, 90
LED FLASHLIGHTS ... 146
MARINE RADIOS & ANTENNAS ... 42, 43
METAL DETECTORS ... 46
MICROPHONES & ACC ... CII, 83, 85, CIII
MICROSCOPES ... 84, 97
MOBILE 2M ... 45, 54, 61, 67, 68, 69, 71
MOBILE 6M ... 45, 67, 69
MOBILE 10M (10/12M) ... 69
MOBILE 220MHZ ... 45, 54, 61, 67, 68
MOBILE 440 MHz ... 45, 54, 61, 67, 68
MOBILE 1.2GHZ ... 54, 68
MOBILE/BASE MULTI-BAND .... 45, 49, 54, 67, 68, 69, 71, CIV
MOBILE MOUNTS/HOLDERS.. 104, 105, 121, 124, 124, 125, 127, 134, 145
NIGHT VISION ... 95, 98, CIII
PACKET/HF MODEMS ... 87, 88
PHONE PATCHES ... 93, 144
POWER INVERTERS ... 78
POWER SUPPLIES ... 43, 75, 78, 79, 82
POWER SUPPLY ACCESSORIES ... 79, 81, 144
PREAMPLIFIERS ... 82, 135
ON-AIR SIGN ... 142
QRP EQUIPMENT ... 56, 59, 60, 69
QSL CARD HOLDERS ... 143
RADAR SPEED GUN ... 27, 95
REPEATERS ... 146
ROTORS ... 130, 140, 141
SCANNERS ... 30, 32 ,33, 35, 36, 43
SELF-POWERED PRODUCTS/SOLAR ... 41, 142
SHORTWAVE ... 30, 31, 32, 33, 35, 36, 43
SIRENS ... 145
SOLDERING TOOLS ... 145
SOUND CARD INTERFACES ... 87, 88
SPEAKERS ... 142, 144
SURGE/LIGHTNING 78, 94, 99, 131, 135, 136
SWR/WATTMETERS & ANALYZERS.. 71, 72, 73, 74, 75, 81
SSTV VISUAL COMMUNICATOR ... 50, 54
TV ACCESSORIES ... 59, 93, 94, 131
TELESCOPES/SPOTTING SCOPES 95, 96, 97, 98
TEST EQUIPMENT ... 72, 74
TOOLS ... 132, 144, 145
TRANSVERTER (6M) ... 64, 146
TOWERS/TRIPODS/ACC ... 100, 137, 138, 139
VHF DATA RADIOS ... 69
VLF CONVERTER ... 143
WEATHER INSTRUMENTS ... 40, 41, 93, CIII
WEATHER PROOFING PROUCTS ... 135

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

CODES WITHIN THE PRICE GUIDE

(T) Item too large for UPS. Shipment by truck only. No COD, send payment in advance or use charge card for merchandise. Freight charges collected upon delivery.

Note: Charges for truck shipments from 1-99 lbs are running a minimum of $80.00, plus local destination charges. It is advisable to contact a local freight office for a quotation.

(D) **DISCONTINUED** by Manufacturer but available from stock in limited quantities when price guide was published.

(†) **TEMPORARY LOW PRICE** due to special purchase, over stock, etc. Quantities may be limited at this price.

(Δ) Item **not** discontinued by Manufacturer but probably won't be available from AES when present stock is gone.

All Prices and Specifications in this catalog are subject to change without notice. Due to foreign currency fluctuations, promotions, manufacturer's specials, etc., prices may vary, so please confirm prices with salesperson before ordering.

AMATEUR ELECTRONIC SUPPLY® is not responsible for typographical errors or omissions.

Copyright © 2002 AMATEUR ELECTRONIC SUPPLY®

ADI (ADI)

	AES Price
AT-201HP 5w 2m FM HT/batt/cgr/TTP	$ 99.99
AT-401HP 5w 440 FM HT/batt/cgr/TTP	159.99
ARC-12 Smart charger D	49.99
CBP-262 Battery holder; 6 AA nicads	19.99
CHA-072 Wall charger for RBP-072 batt	12.99
CHA-120 Wall charger for RBP-120 batt	12.99
CHA-612 Wall charger for RBP-612 batt Δ	4.99
CHA-672/CHA-607 Wall cgr; RBP-607 batt Δ	4.99
PCA-145 Cig lighter cable; not for AT-600	14.99
PCA-600 Cig lighter cable for AT-600 Δ	9.99
PROG-600 PC prog soft/cable for AT-600 Δ	24.99
RBP-120NMH 12v 600ma NiMH	69.99
SD-911 Rapid charger	62.99
SLC-200/SLC200S 2.5w case; not AT-600 Δ	4.99
SLC-200-L 5w carrying case; not for AT-600	20.99
SLC-600-S 2.5w carrying case; AT-600 Δ	4.99
SLC-600-L 5w carrying case; AT-600HP Δ	9.99

See Premier for speaker/mics for ADI HTs

AR-147+ 60w 2m FM Xcvr w/TTP mic	149.99
MTG BKT Extra mobile bracket	10.99
PROG-47 PC prog soft/cable; AR-147/247/447	39.99
PWR CORD Extra DC cable	10.99
AR-247 30w 220 FM Xcvr w/TTP mic	209.99
MTG BKT Extra mobile bracket	10.99
PROG-47 PC prog soft/cable; AR-147/247/447	39.99
PWR CORD Extra DC cable	10.99
AR-447 35w 440 FM Xcvr w/TTP mic	209.99
MTG BKT Extra mobile bracket	10.99
PROG-47 PC prog soft/cable; AR-147/247/447	39.99
PWR CORD Extra DC cable	10.99

ADI/PRYME

PR-52 5w 6m FM HT/batt/cgr/TTP	$159.99
PR-222 5w 220 FM HT/batt/cgr/TTP	169.99
CBP-263 AA battery case	19.99
CHA-120 Wall charger for RBP-22 batt	12.99
PTC-001 Mobile power pack	28.99
RBP-22H 12v 1000ma NiMH battery	69.99
SD-911 Rapid charger	62.99
SLC-22L Leather case	14.99

See Premier for speaker/mics for ADI/Pryme HTs

AES Price

AES (AES)

Black On Air Black ON AIR illuminated sign	$ 68.99
Oak On Air Oak ON AIR illuminated sign	69.99
PCL-1 20w mobile spkr w/3.5mm plug	19.99

AIM (AIM)

24-7735P Coax stripper; RG-58/59/62	$ 21.99
24-7736P Coax stripper; RG-59/6/8281	21.99
24-7739P Coax stripper; RG-8/11/213	28.99
38-305 500ma 3/4.5/6/7.5/9/12vdc adapter	9.99
38-312 1.2A 1.5/3/4.5/6/7.5/9/12vdc adapt	29.99
38-384 4A power supply, 5A surge	39.99

AOR (AOR)

AR-3000A .1-2036MHz dlx w/SSB/cell blkd	1099.99
MM-1 Mobile mounting bkt; AR-3000AB D	14.99
SDU-5500 Spec disp; AR-3000AB/ico base Rcvr	1099.99
AR-8600B .53M-2.04G base rcvr AM/FM/SB/cell blkd D	799.99
AR-8600 Mk II-B .53M-2.04G base Rcvr/cell blkd	899.99
AR-8200 Mk II-B .5-2040 hand/SSB/cell blkd	549.99
LC-8200 Leather case	24.99
SC-8200P Soft case	13.99
LA-350 3-30MHz active loop antenna	299.99
350M .54-1.6MHz antenna element	76.99
TDF-370 Multi-media terminal/DSP	329.99

ARRL (ARR)

097 2003 hardcover Radio Amateur's Handbook	$ 49.95
098 2003 Radio Amateur's HB CD-ROM	39.95
101 2003 softcover Radio Amateur's Handbook	34.95
104 1990-94 QST on CD-ROM	39.95
105 1985-89 QST on CD-ROM	39.95
106 1980-84 QST on CD-ROM	39.95
107 1975-79 QST on CD-ROM	39.95
108 1970-74 QST on CD-ROM	39.95
109 1995-99 QST on CD-ROM	39.95
110 200 Meters and Down (early ham radio)	12.00
116 APRS Tracks, Maps & Mobiles	14.95
126 Antenna Book w/IBM software	30.00
128 Antenna Book CD-ROM	39.95
130 Antenna Compendium 1	10.00
135 Antenna Compendium 2	14.00
137 Antenna Compendium 6 w/software	22.95
139 Antenna Compendium 5 w/software	20.00
142 Best of the New Ham Companion	12.00
143 Beyond Line of Sight	12.00
148 DXCC countries list	4.00
156 Extra Class License Manual	24.95
161 FCC Rule Book	12.00
169 General Class License Manual	15.00
170 General Q & A Manual	12.95
175 General Video Course/book/software	149.00
176 General Course book/software only	39.00
180 Grid Locator Atlas	5.00
185 HF Digital Handbook 2nd edition	17.95
186 Ham Radio FAQ	14.95
187 Hints and Kinks 15th edition	12.00
190 Image Communications Handbook	25.95
192 Introduction to Morse Code CD's (2)	14.95
195 Introduction to Morse Code cassettes	14.95
198 Introduction to RF Design w/software	39.95
201 Log Book	5.00
205 Minilog	4.95
208 More Wire Antenna Classics	14.00
210 Morse Code the Essential Language	8.00
235 Now You're Talking (new ham)	19.00
240 On the Air With Ham Radio	17.95
241 Operating Manual	25.00
242 Operating Manual CD-ROM	39.95
243 2002 Passport to Worldband Radio D	19.95
252 Packet: Speed, More Speed & Applications	15.00
253 Practical Packet Radio	15.95

ARRL - continued

AES Price

254 1995 ARRL Periodicals CD-ROM	19.95
256 QRP Power	12.00
257 1996 ARRL Periodicals CD-ROM	19.95
258 RF Exposure and You	15.00
259 1997 ARRL Periodicals CD-ROM	19.95
260 Radio Puzzler	7.95
261 Radio Frequency Interference	20.00
263 1998 ARRL Periodicals CD-ROM	19.95
264 Satellite Handbook	24.95
266 1999 ARRL Periodicals CD-ROM	19.95
267 2000 ARRL Periodicals CD-ROM	19.95
268 2001 ARRL Periodicals CD-ROM	19.95
271 2002/2003 Repeater Directory	9.00
277 Satellite Anthology 5th edition	15.00
285 Set 1 5-10 wpm code practice cassettes	12.00
290 Set 2 10-15 wpm code practice cassettes	12.00
301 10-15 wpm code practice audio CD	14.00
302 15-22 wpm code practice audio CD	14.00
303 5-10 wpm code practice audio CD	14.00
304 Simple and Fun Antennas for Hams	22.95
308 Spread Spectrum Source Book	20.00
310 Stealth Amateur Radio	14.95
315 Tech Q & A License Manual	12.95
317 Technician Video Course/book/software	149.00
318 Technician Course book/software only	29.00
320 Transmitter Hunting	24.95
322 TravelPlus for Repeaters 02/03 CD-ROM	39.95
324 UHF/Microwave Project Manual vol 2	15.00
328 Understanding Basic Electronics	20.00
329 Vertical Antenna Classics	12.00
340 W1FB's QRP Notebook	10.00
342 Weather Satellite Handbook	20.00
343 WX Satellite Handbook companion software	10.00
344 Wire Antenna Classics	14.00
346 World Azimuthal Map	12.00
347 Radio Amateurs World Atlas	9.95
350 Yagi Antenna Classics	17.95
354 Your Mobile Companion	12.00

ATOC (ATO)

HITH-1 ¾-24 trailer hitch antenna mount	$ 17.99

ALINCO (ALI)

DJ-C5T 300mw cc size 2m/440 HT/lith ion/spkr	$149.99
EDC-16B Cigarette lighter cable w/filter	21.99
EDC-36 Angle plug power cable w/filter	24.99
EME-12 Headset w/earphone/mic/VOX	71.99
EME-13 Headset w/ear bud/mic/VOX	71.99
EME-15 Earphone/mic w/VOX	56.99
EME-17 Boom earphone mic	32.99
EME-18 Earphone	8.99
EDS-7 Mic adapt; EME-12/13/15/16/17/18	12.99
EME-20 Tie-pin mic & earphone	17.99
EMS-49 Miniature lapel spkr/mic	32.99
EMS-50 Speaker/mic	41.99
ESC-34 Soft case w/belt clip	13.99
EDC-3 Belt clip; DJ180TH/280TH D	2.99
EBP-24N 7.2v 1200ma batt; 180/580/582T Δ	69.99
EBP-28N 12v 700ma batt; 180/580/582T Δ	69.99
EDC-45 Desk quick charger; 180TH/280TH D	79.99
EDC-49 Batt cgr; EBP-20/22/24/26/28N Δ	22.99
EDC-52 Quick charger; DJ-G1T Δ	14.99
EDC-55 Drop-in cgr; EBP30/31/32N; G1T Δ	2.99
EDH-11 AA alk pack; DJ-180/580/582T Δ	12.99
EDH-12 DC jack adapter; DJ-180/280TH Δ	12.99
EJ-14U 50 ch mem unit; DJ-180/280TH Δ	14.99
EJ-15U 200 ch mem unit; DJ-180/280TH Δ	30.99
EME-11 Ear/mic w/PTT/VOX; DJ-180/280TH D	24.99
ESC-18 Soft case; 180TH/EBP-26N Δ	9.99
ESC-19 Soft case; 180TH/EBP-28N Δ	14.99

Alinco - continued

	AES Price
DJ-196T 5w 2m FM HT/batt/cgr/TTP	139.99
DJ-296T 5w 220 FM HT/batt/cgr/TTP	179.99
DJ-496T 5w 440 FM HT/batt/cgr/TTP	149.99
DJ-596T 5w 2m/440 FM HT/NiMH/cgr/TTP	209.99
EBC-6 Mobile bracket	15.99
EBP-48N 9.6v 700ma 5w nicad battery	64.99
EBP-50N 9.6v 700ma 5w NiMH battery	23.99
EBP-51N 9.6v 1500ma 5w NiMH battery	37.99
EDC-16B Cigarette lighter cable w/filter	21.99
EDC-36 Angle plug power cable w/filter	24.99
EDC-37 13.8v power cable	7.99
EDC-43 Cig lighter cable	10.99
EDC-88 Quick charger; nicad battery packs	60.99
EDC-97 Quick charger; MiMH battery packs	70.99
EDH-30 Dry cell battery case	15.99
EJ-43U Digital board for DJ-596T only	109.99
EME-6 Earphone	10.99
EME-12 Headset w/earphone/mic/VOX	71.99
EME-13 Headset w/ear bud/mic/VOX	71.99
EME-15 Earphone/mic w/VOX	56.99
EME-17 Boom earphone mic	32.99
EME-20 Tie-pin mic & earphone	17.99
EMS-47 Spkr/mic w/volume control	24.99
ERW-4C PC cable	39.99
ESC-36 Soft case for EBP-48N	13.99
SW-596 Windows prog software; DJ-596T	29.99
DJ-V5TH 5w 2m/440 FM HT/batt/cgr/TTP	209.99
EBP-46N 9.6v 600ma 5w nicad battery	64.99
EDC-16B Cigarette lighter cable w/filter	21.99
EDC-36 Angle plug power cable w/filter	24.99
EDC-37 13.8v power cable	7.99
EDC-43 Cig lighter cable	10.99
EDC-91 Quick charger	60.99
EDH-29 Dry cell case for 4-AA's	12.99
EME-6 Earphone	10.99
EME-12 Headset w/earphone/mic/VOX	71.99
EME-13 Headset w/ear bud/mic/VOX	71.99
EME-15 Earphone/mic w/VOX	56.99
EME-17 Boom earphone mic	32.99
EME-20 Tie-pin mic & earphone	17.99
EMS-8Z Remote speaker/mic	50.99
EMS-47 Spkr/mic w/volume control	24.99
ESC-35 Soft case for EBP-45N/46N	13.99
DJ-S11T 340mw 2m FM HT/battery holder	79.99
EBC-6 Mobile bracket	15.99
EDC-78 Wall charger; (not for alkalines)	7.99
EDH-18 12v to 5.5v DC/DC conv/cig plug	32.99
EME-6 Earphone	10.99
EME-12 Headset w/earphone/mic/VOX	71.99
EME-13 Headset w/ear bud/mic/VOX	71.99
EME-15 Earphone/mic w/VOX	56.99
EME-17 Boom earphone mic	32.99
EME-20 Tie-pin mic & earphone	17.99
EMS-47 Spkr/mic w/volume control	24.99
ESC-27 Soft case	16.99
DJ-S40T 500mw 440 FM HT/battery holder	89.99
EBC-6 Mobile bracket	15.99
EBP-52N 3.6v 500ma NiMH battery	37.99
EBP-53N 6v 500ma NiMH battery	45.99
EBP-54N 3.6v 1500ma NiMH battery	49.99
EDC-37 13.8v power cable	7.99
EDC-43 Cig lighter cable	10.99
EDC-105 Drop-in NIMH battery cgr, less ps	24.99
EDC-93 Wall ps for EDC-105	10.99
EDH-31 Dry cell battery case	12.99
EME-6 Earphone	10.99
EME-12 Headset w/earphone/mic/VOX	71.99
EME-13 Headset w/ear bud/mic/VOX	71.99
EME-15 Earphone/mic w/VOX	56.99
EME-17 Boom earphone mic	32.99
EME-20 Tie-pin mic & earphone	17.99

Alinco - continued

	AES Price
EMS-8Z Remote speaker/mic	50.99
EMS-47 Spkr/mic w/volume control	24.99
ERW-4C PC cable	39.99
ESC-37 Soft case	13.99
DJ-X2T 522KHz-1GHz cc size Rcvr/lith ion/cell blkd	219.99
EDC-36 Angle plug power cable w/filter	24.99
EDC-37 13.8v power cable	7.99
EDC-43 Cig lighter cable	10.99
EDH-27 Dry cell case w/charger	38.99
EDH-28 DC/DC converter w/cig plug	35.99
ESC-34 Soft case w/belt clip	13.99
DJ-X3T .1MHz-1.3GHz AM/FM hand Rcvr/cell blkd	209.99
EBP-52S 3.6v 500ma NiMH battery	37.99
EDC-105 Drop-in NiMH battery cgr, less ps	24.99
EDC-93 Wall ps for EDC-105	10.99
EDH-31S Dry cell battery case	12.99
ESC-37 Soft case	13.99
DJ-X10T .1MHz-2GHz AM/FM/SB hand rcv/cell blkd	309.99
EBP-33N 4.8v 650ma nicad battery	34.99
EBP-34N 4.8v 1200ma nicad battery	84.99
EBP-37N 4.8v 700ma nicad battery	34.99
EDC-16B Cigarette lighter cable w/filter	21.99
EDC-36 Angle plug power cable w/filter	24.99
EDC-37 13.8v power cable	7.99
EDC-43 Cig lighter cable	10.99
EDC-88 Quick charger; nicad battery packs	60.99
EDH-16 Dry cell battery case	12.99
EME-6 Earphone	10.99
ERW-4C PC cable	39.99
ESC-28 Soft case for EBP-33N	13.99
ESC-29 Soft case for EBP-37N	13.99
ESC-30 Soft case for EBP-34N	13.99
DJ-X2000T .1-2149MHz receiver/cell blocked	499.99
EBP-33N 4.8v 650ma nicad battery	34.99
EBP-34N 4.8v 1200ma nicad battery	84.99
EBP-37N 4.8v 700ma nicad battery	34.99
EDC-16B Cigarette lighter cable w/filter	21.99
EDC-36 Angle plug power cable w/filter	24.99
EDC-37 13.8v power cable	7.99
EDC-43 Cig lighter cable	10.99
EDC-88 Quick charger; nicad battery packs	60.99
EDH-16 Dry cell battery case	12.99
EME-6 Earphone	10.99
ERW-4C PC cable	39.99
ESC-28 Soft case for EBP-33N	13.99
ESC-29 Soft case for EBP-37N	13.99
ESC-30 Soft case for EBP-34N	13.99
DR-M06TH 20w 6m FM Xcvr/TTP/encoder	259.99
MB-130 Extra mobile bracket	19.99
HK-130 Hardware kit for MB-130	4.99
PC-15B Extra DC cable	10.99
DR-135T Black 50w 2m FM Xcvr w/TTP mic	169.99
DR-235T Black 25w 220 FM Xcvr w/TTP mic	249.99
DR-435T Black 35w 440 FM Xcvr w/TTP mic	259.99
EDC-37 13.8v power cable; ignition on/off	7.99
EDC-43 Cig lighter cable; ignition on/off	10.99
EJ-40U Digital board; DR-135T/TP/235T/435T	119.99
EJ-41U 1200/9600 TNC unit; 135/235/435T	139.99
MB-130 Extra mobile bracket	19.99
HK-130 Hardware kit for MB-130	4.99
PC-15B Extra DC cable	10.99
DR-135TP Black 50w 2m FM/TT/1200/9600 TNC	269.99
EDC-37 13.8v power cable; ignition on/off	7.99
EDC-43 Cig lighter cable; ignition on/off	10.99
EJ-40U Digital board; DR-135T/TP/235T/435T	119.99
MB-130 Extra mobile bracket	19.99
HK-130 Hardware kit for MB-130	4.99
PC-15B Extra DC cable	10.99
CC-150 Cloning cable for DR-150TQ D	4.99
EJ-19U Memory expansion unit; DR-430TQ Δ	4.99

Alinco - continued

	AES Price
DR-605TQ 50/35w 2m/440 FM/TT/EJ24U tone sq	339.99
EMS-14 Desk top microphone	114.99
EDS-8 Adapter for EMS-14 w/DR-605TQ	28.99
MB-130 Extra mobile bracket	19.99
HK-130 Hardware kit for MB-130	4.99
PC-15B Extra DC cable	10.99
EDS-1 Junc box w/ext spkr, mic jacks; 610TQ Δ	29.99
DX-70TH Comp HF Xcvr/100w 6m/mob bkt	749.99
DM-330MVT 30A switching ps/meter/32A surge	179.99
DM-340MVT 30A ps w/meters/35A surge D	169.99
EBC-8 Front control head bracket	15.99
EBC-9 Extra mobile bracket	32.99
EDS-4 Rem mt acc kit w/5' cable, 2 covers	41.99
EDS-5 15' microphone extension cable	36.99
EDS-6 15' remote cable	68.99
EDX-2 160-10m 200w wire auto tuner	319.99
EMS-14 Desk top microphone	114.99
PC-25 Extra DC cable	35.99
DX-77T 160-10m HF Xcvr	699.99
DM-330MVT 30A switching ps/meter/32A surge	179.99
DM-340MVT 30A ps w/meters/35A surge D	169.99
EDS-5 5' microphone extension cable	36.99
EDX-2 160-10m 200w wire auto tuner	319.99
EMS-14 Desk top microphone	114.99
ERW-4C PC cable	39.99
PC-25 Extra DC cable	35.99

ALPHA DELTA (ALP)

Extra **arc-plug** cartridge for **LT** or LT/N D	$ .99
RT-N/2G 200w 1 GHz type N protector D	9.99
Extra **arc-plug** cartridge for **HV-N/2G** D	2.99
ATT-3G50 200w 3GHz type N surge protector	59.99
ATT-3G50-HP 2kw 3GHz type N surge protector	59.99
ATT-3G50U 200w 500MHz surge protector	49.99
ATT-3G50U-HP 2kw 500MHz surge protector	49.99
ATT/3G50 Extra 200w arc-plug cartridge	14.99
ATT-HP/3G50HP Extra 2kw arc-plug cart	14.99
Delta-2 500 MHz 2-pos coax switch/protector	49.99
Delta-2/N 1.3 GHz 2-pos type N switch/protector	64.99
Delta-4 500 MHz 4-pos coax switch/protector	79.99
Delta-4/N 1.3 GHz 4-pos type N switch/protector	89.99
D-4 Extra arc-plug; Delta-2/2N/4/4N	9.99
Delta-4C 4-pos coax switch/protector console	139.99
Delta-4CN 4-pos N coax switch/protector console	149.99
D-4 Extra arc-plug; Delta-4C/4CN	9.99
Delta-C Kit w/ctr ins/2 end ins/static protect	29.99
SEP Extra arc-plug cart; DX-Ultra/Delta-C	15.99
Delta-CIN Antenna end insulator each	1.99
DX-80 80m 134' complete dipole antenna	49.99
DX-40 40m 67' complete dipole antenna	39.99
DX-20 20m 34' complete dipole antenna	39.99
DX-A 160-80-40m twin sloper antenna	59.99
DX-B 160-80-40-30m 60' sloper ant	69.99
DX-CC 80-10m 5-band 82' no trap, no tuner dipole	119.99
DX-DD 80/40m 82' Delta Dipole antenna	89.99
DX-EE 40-10m 4-band 40' no trap, no tuner dipole	99.99
DX-LB 160-80-40m 100' shortened dipole	119.99
DX-LB Plus 160/80/40/20/15/10m 100' short dip	149.99
DX-SWL AM broadcast-13m 60' SWL sloper ant	79.99
DX-Ultra AM broadcast-30MHz 80' SWL dipole	119.99
SEP Extra arc-plug cart; DX-Ultra/Delta-C	15.99
Outpost Base tripod mtg sys for mobile ant	199.99
Pathfinder 1.8-30Mhz+6m dig auto ant tuner	399.99
Pathminder 1.8-54 dig 6pos coax switch/protector	139.99
SK-1 Straight Kent key	129.99
SP-1 Single paddle Kent key	139.99
TP-1 Twin paddle iambic Kent key	149.99
Basic Technology Amateur Radio video & book	39.99

Also see OUTBACKER

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

AES Price

AMECO PUBLICATIONS (AME)

4-01 Code Course Instruction Booklet	$ 2.99

CODE COURSES - CASSETTE TAPES

100-T Junior code tape, 0-7½ wpm	$ 5.95
107-PC-2 IBM Morse Code Course, version 2.0	29.95

CODE PRACTICE OSCILLATORS & CODE KEYS

K-1 Bakelite type key	$ 10.95
K-4 Brass type key	16.95
OCM-2K Code oscillator & CW monitor kit	19.99
OCM-2W Wired oscillator & CW monitor	24.99

PREAMPLIFIERS

TPA HF receive preamp & indoor active ant	$ 76.99
P-9T Power supply for TPA	9.99
PT-3 2-54 MHz transceiver preamp	124.99
P-12T Power supply for PT-3	9.99

FILTERS

HP-75T 75 ohm high-pass filter	$ 12.99
HP-300T 300 ohm high-pass filter	12.99

AMERITRON (AMR)

AL-80B 1kw PEP out linear (3-500Z)	1199.99
AL-82 1.5kw PEP out linear (2 3-500Zs)	2099.99
AL-572 1.3kw PEP out linear (4 572Bs)	1299.99
AL-800 1250w PEP out linear (3CX800A7)	1629.99
AL-800H 1.5kw PEP out amp (2 3CX800A7)	2399.99
AL-811 600w PEP out linear (3 811As)	599.99
AL-811H 800w PEP out linear (4 811As)	749.99
AL-1200 1.5kw PEP out linear (3CX-1200A7)	2199.99
AL-1500 1.5kw out linear (8877)	2599.99
ALS-500M 600w PEP out solid state mob amp	699.99
ALS-600 700w PEP out solid state amp w/ps	1129.99
ARB-704 Amplifier Xcvr interface buffer	49.99
PNP-5M Plug & play cable; FT-847	15.99
PNP-7D Plug & play cable; TS-50S/870S/2000	15.99
PNP-8D Plug & play cable; FT-920/1000 series	15.99
PNP-8M Plug & play cable; FT-817/840	15.99
PNP-35 Plug & play cable; FT-100 series	15.99
ARB-704I2 Amp Xcvr interface; IC-706 series	49.99
PNP-13D Plug & play cable; IC-706 series	15.99
ATP-100 Amplifier tuning pulser	49.99
ATP-102 Deluxe amplifier tuning pulser	59.99
ATR-20 1.2kw PEP antenna tuner	419.99
ATR-30 3kw PEP antenna tuner	549.99
ADL-1500 1.5kw dummy load with oil	69.99
ADL-2500 2.5kw dummy load with fan	189.99
ICP-120 120v inrush protector	79.99
ICP-240 240v inrush protector	79.99
AWM-30 3kw PEP SWR/wattmeter/rem sens	139.99
QSK-5 Stand alone T/R switch	329.99
QSK-5PC PC board kit; T/R switch	229.99
CF-5 Cooling fan for QSK-5	39.99
RCS-4 4-pos wireless remote coax switch	129.99
RCS-8V 160-2m 5-pos remote coax switch	139.99
RCS-8VN 160-2m 5-pos N rem coax switch	149.99
Note: RCS-8V/VN require 8-wire control cable.	
RCS-10 DC-100MHz 8-pos remote coax switch	149.99
Note: RCS-10 requires 4-wire control cable.	

Antenna Specialists (ASP)

AP-143 2m 23" on glass cell look-alike ant	$ 69.99
APR151.3 2m 3db 33" on glass antenna	69.99
KAV-382 On glass replacement mtg kit	12.99
ASC-3AD Heavy duty chrome spring .....D	6.99
MONR51 H/L/U magnet mt monitor ant .....D	19.99
MS180 Gutter mount CB antenna .....D	14.99

Antenna Supermarket (ANT)

Eavesdropper* 60-11m trap dipole SWL ant	$ 89.99

*Specify **SO-239** or **twin**-lead

AES Price

ANTENNA WORLD (ANW)

COM136-4500NP VHF/UHF port dipole/BNC	$ 19.99

ARROW Antenna (ARA)

146/437-10 3 el 2m/7 el 440 handheld beam	$ 73.99
146/437-10BP 3el 2m/7el 440 HH split bm beam	79.99
10w duplexer (installs in boom) w/BNC	59.99
10w **duplexer** (installs in boom) w/**SMA**	64.99

ARTSCI (ART)

Amateur Handbook (Hambook)	$ 14.95
Lost Users Manuals	19.95
US Repeater Mapbook 2000/2001 edition	9.99

ASTATIC (AST)

Silver Eagle Final Edition amp desk mic ....D	$199.99

ASTRON (ASR)

RS-4L 3A ps, 4A surge, w/cig lighter socket	$ 49.99
RS-7A 5A power supply, 7A surge	59.99
RS-10A 7.5A power supply, 10A surge	69.99
RS-12A 9A power supply, 12A surge	79.99
RS-12S 9A ps, 12A surge, w/speaker	89.99
RS-20A 16A power supply, 20A surge	99.99
RS-35A 25A power supply, 35A surge	149.99
RS-35A/220V 220v 25A ps, 35A surge	169.99
RS-50A 37A power supply, 50A surge	219.99
RS-70A 57A power supply, 70A surge	259.99
RS-20M 16A ps w/meters, 20A surge	119.99
RS-35M 25A ps w/meters, 35A surge	169.99
RS-50M 37A ps w/meters, 50A surge	239.99
RS-70M 57A ps w/meters, 70A surge	289.99
VS-20ML Variable 16A ps/meters, 20A surge	139.99
VS-35M Variable 25A ps/meters, 35A surge	189.99
VS-50M Variable 37A ps/meters, 50A surge	259.99
RM-35M 25A rack mt ps/meters, 35A surge	249.99
RM-50M 37A rack mt ps/meters, 50A surge	279.99
RM-60M 50A rack mt ps/meters, 55A surge	359.99
SS-25 20A switching ps, 25A surge	109.99
SS-25M 20A switching ps/meters, 25A surge	129.99
SS-30 25A switching ps, 30A surge	119.99
SS-30M 25A switching ps/meters, 30A surge	139.99
12/115 200w solid state 12vdc-115vac inverter	69.99
N2412-12 9A 22-32vdc to 13.8vdc converter	49.99
N2412-24 16A 22-32vdc to 13.8vdc converter	79.99

BMI (BMI)

972AD 14" 12/24-hour wall clock	$ 32.99
973A 12" 24-hour wall clock	49.99

B & W (B&W)

AP-10A 51" portable 40/20/15/10/6/2m ant	$ 89.99
AT-55 40/20/15/10m 55' trap dipole ant	99.99
AT-110 80/40/20/15/10m 110' trap dipole	99.99
AS-160 160/80/40/20m 137' trap dipole	154.99
AS-80 80/40/20m 78' trap dipole antenna	119.99
AS-40 40/20/15/10m 40' trap dipole ant	154.99
AS-20 20/15/10m 20' trap dipole antenna	119.99
AC-1.8-30 Continuous 1.8-30 MHz vee ant	209.99
ACS-1.8-30 Continuous 1.8-30MHz stainless vee	329.99
AC-5-30 5-30 MHz 65' folded dipole	199.99
ACS-5-30 5-30 Mhz stainless 65' folded dipole	319.99
FDMK Mtg kit; folded dipole w/3 pole installation	39.99
ASW-90 500KHz - 30MHz 90' receive only ant D	99.99
AXS-160 160/30m 96' trap dipole antenna	99.99
AXS-80 80/40/15m 65' trap dipole antenna	119.99
BWD-1.8-30 1.8-30 MHz 90' folded dipole	199.99
BWDS-1.8-30 1.8-30 stainless 90' folded dip	319.99
FDMK Mtg kit; folded dipole w/3 pole installation	39.99

AES Price

BELDEN (BEL)

52 OHM COAXIAL CABLE

8216 RG-174 (sub-miniature)	per ft.	$ .31
8216	**100** ft. Roll	29.99
8216	**500** ft. Roll	109.99
8216	**1000** ft. Roll	199.99
9201 RG-58 (solid center)	per ft.	.25
9201	**100** ft. cut	23.99
9201	**500** ft. Roll	99.99
9201	**1000** ft. Roll	179.99
8240 RG-58U (solid center)	per ft.	.30
8240	**100** ft. Roll	28.99
8240	**500** ft. Roll	104.99
8240	**1000** ft. Roll	199.99
8259 RG-58AU (stranded center)	per ft.	.34
8259	**100** ft. Roll	31.99
8259	**500** ft. Roll	109.99
8259	**1000** ft. Roll	199.99
8219 RG-58AU (stranded, foam)	per ft.	.34
8219	**100** ft. Roll	31.99
8219	**500** ft. Roll	104.99
8219	**1000** ft. Roll	199.99
8262 RG-58CU (non-contaminating)	per ft.	.42
8262	**100** ft. cut	38.99
8262	**500** ft. Roll	149.99
8262	**1000** ft. Roll	269.99
9258 RG-8X (stranded, foam)	per ft.	.39
9258	**100** ft. cut	34.99
9258	**500** ft. Roll	129.99
9258	**1000** ft. Roll	239.99
8237 RG-8U	per ft.	.64
8237	**100** ft. Roll	59.99
8237	**500** ft. Roll	249.99
8214 RG-8U (foam)	per ft.	.59
8214	**100** ft. Roll	54.99
8214	**500** ft. Roll	259.99
8214	**1000** ft. Roll	489.99
9913 RG-8U (low loss)	**100** ft. Roll	59.99
9913	**250** ft. Roll	129.99
9913	**500** ft. Roll	239.99
9913F7 RG-8U (low loss, flexible)	per ft.	.87
9913F7	**100** ft. Roll	79.99
9913F7	**250** ft. Roll	159.99
9913F7	**500** ft. Roll	299.99
9251 RG-8A (non-contaminating)	per ft.	.99
9251	**100** ft. cut	94.99
9251	**500** ft. Roll	369.99
8267 RG-213 (non-contaminating)	per ft.	.87
8267	**100** ft. cut	79.99
8267	**500** ft. Roll	349.99

75 OHM COAXIAL CABLE

8241 RG-59U (73 ohm, solid center)	per ft.	$ .33
8241	**100** ft. Roll	29.99
8241	**500** ft. Roll	94.99
8241	**1000** ft. Roll	179.99
8238 RG-11 (75 ohm, stranded center)	per ft.	.99
8238	**100** ft. cut	94.99
8238	**500** ft. Roll	349.99
8213 RG-11 (75 ohm, solid, foam)	per ft.	.89
8213	**100** ft. cut	79.99
8213	**500** ft. Roll	289.99

ROTOR CABLE

8484 4-wire; 4-20 gauge	per ft.	$ .29
8484	**100** ft. cut	26.99
8484	**500** ft. Roll	99.99
8484	**1000** ft. Roll	189.99

Belden - continued

		AES Price
8448	8-wire; 2-18, 6-22 gauge ....per ft.	.34
8448	....100 ft. cut	29.99
8448	....500 ft. Roll	129.99
8448	....1000 ft. Roll	249.99
9405	8-wire; 2-16, 6-18 gauge ....per ft.	.74
9405	....100 ft. cut	69.99
9405	....500 ft. Roll	319.99
9405	....1000 ft. Roll	599.99

ANTENNA WIRE

8000	No. 14 stranded ant wire ....per ft.	$ .24
8000	....100 ft. Roll	20.99
8000	....1000 ft. Roll	179.99

No. 8 ALUMINUM GROUND WIRE

8018	Multiples of **50** ft. ....each	$ 14.99
8018	....500 ft. Roll	99.99

Note: All above roll pricing is for rolls as shown only; all other lengths, even if more than roll length shown or a multiple of roll length shown, are sold at the per ft. price.

FOAM COAX w/PL-259s ON BOTH ENDS

9349	3' RG-58AU foam ....D	$ 16.99
9352	50' RG-58AU foam ....D	28.99
9354	50' RG-8U foam	54.99
9355	75' RG-8U foam	79.99
9356	100' RG-8U foam	94.99

BELMERIT (BLM)

DM-80	Credit card size multimeter w/case ...	$ 34.99
DX-405	10 func/39 range+20MHz freq multimeter	69.99

BENCHER (BEN)

BY-1	Iambic keyer paddle w/black base	$109.99
BY-2	Iambic keyer paddle w/chrome base	129.99
BY-3	Iambic keyer paddle, gold plated	299.99
BY-4	Iambic paddle/blk base/gold components	189.99
170-82	Merc paddle drop ship; mfgr engrave call $50	449.99
ST-1	Single lever keyer paddle, black base ...	109.99
ST-2	Sgl lever kyr paddle, chrome base	129.99
RJ-1	Dlx hand key w/navy knob/black base ..	105.99
RJ-2	Dlx hand key w/navy knob/chrome base	130.99
XW-1	Low voltage DC fuse panel ....D	14.99
XW-20	Fuse kit ....D	1.99
XW-39/XW-30	Crimp terminal kit ....D	1.49
XW-40	Screw terminal kit ....D	1.99
HWK	Hardware kit; ZA-1A for 2" boom ....D	4.99
YA-1	1kw low pass filter	85.99

Bounty Hunter (BOU)

Fast Tracker	Metal detector/2-tone target ID	$ 99.99
Tracker IV	Metal detector/3-mode	129.99
Quick Draw II	Metal detector/full motion	224.99
Sharp Shooter II	Metal detector/LCD readout	279.99
Land Star	Metal detector/3-tone audio discrim	349.99
Land Ranger	Metal detector/programmable .	449.99
Time Ranger	Metal detector/top-of-the-line .	549.99
Carry Bag	For Bounty Hunter metal detectors	29.99
10" Coil	10" magnum coil; adds depth	59.99

BUCKMASTER (BUC)

HamCall	CD-ROM ham listings	$ 50.99

BUSHNELL (BUS)

13-0430	4x30 LiteVision compact binoculars	$ 18.99
13-0721	7x21 compact Falcon binoculars	29.99
13-1226	12x25 camo FRP compact binocs ...	29.99
13-1250	12x50 wide angle Powerview binocs	59.99
13-2514	8x21 black compact binoculars	24.99
13-3410	7x35 Falcon binoculars	29.99
20-0600	Compact laser rangefinder 600 ...D	229.99
26-3150	Night Vision 3.1x50 binocular	459.99
26-3652	3.6x52 night scope w/illuminator .D	199.99

Bushnell - continued

		AES Price
78-0040	90mm refractor telescope	439.99
78-0103	1.25" erecting prism	69.99
78-0200	4.5" reflector telescope ....D	269.99
78-2010	4.5" reflector telescope	199.99
78-8000	8" Dobsonian reflector telescope ..D	399.99
78-9440	60mm refractor telescope	89.99
78-9470	60mm refractor telescope w/zoom ..	129.99
78-9675	4.5" reflector telescope	229.99
78-0101	1.25" 9mm Kellner eyepc; 0040/6000/8000	29.99
78-0102	1.25" 25mm Kellner eyepiece	29.99
78-0105	1.25" 2x Barlow lens; 0040/0200/6000/8000	39.99
78-0106	DC/batt clock drive; 0040/0200/9675	89.99
10-1907	Speedster sports speed gun	199.99

BUTTERNUT (BUT)

Skyhawk 3X10	Triband 10 el, 24' beam w/bauln *	$999.99

***This item is drop-shipped (shipped direct to you from the Butternut factory). On factory drop-shipments we prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your drop-shipped merchandise. Shipment is FOB Wood Dale, Illinois via UPS, COD for freight charges only. Freight charges will be collected upon delivery by the carrier. Please allow sufficient time for delivery on this special order item.**

HF-6VX	80/40/30/20/15/10m 26' vert ant	349.99
HF-9VX	80/40/30/20/17/15/12/10/6m 26' vert	399.99
A17-12	17 & 12m kit for HF-6VX	65.99
CPK	Counterpoise kit	149.99
MPS	Mounting post sleeve	12.99
RMK-II	Roof mounting kit w/radials	179.99
STR-II	Radial kit only	139.99
TBR-160S	160m resonator	139.99
HF-2V	80/40m 32' vertical	269.99
30-MRK	30m resonator for HF-2V	120.99
TBR-160S	160m resonator	139.99
10/11	10/11m butterfly beam ....Δ	129.99

CQ (CQX)

Building and Using Baluns and Ununs		$ 19.99
Lew McCoy on Antennas		15.99
Shortwave Propagation Handbook		19.99
W6SAI HF Antenna Handbook		19.99

CSS (CSS)

Log Windows	Logging program	$ 89.99
Pacterm 98	CSS Software; Kantronics TNCs	79.99
PK-Term 99	Terminal prog; PK-12/96/232 ...	79.99

CABLE X-PERTS (CAB)

CXP1318FX	CXP1318FX (low loss, flexible) per ft.	$ .59
CXP1318FX	....500 ft. Roll	269.99
CXP1318FC-50	50' CXP1318FX/silver teflon PL259s	48.99
CXP1318FC-75	75' CXP1318FX/silver teflon PL259s	67.99
CXP1318FC-100	100' CXP1318FX/silver teflon PL259s	84.99
CXP1318FC-150	150' CXP1318FX/silver teflon PL259s	121.99
CXP1318FN-3	3' CXP1318FX/type N males	19.99
CXP1318FN-75	75' CXP1318FX/type N males	81.99
CXP1318FN-100	100' CXP1318FX/type N males	98.99
CXP1318FN-125	125' CXP1318FX/type N males	116.99
CXP008C-3	3' RG8 foam/silver teflon PL259s	12.99
CXP008C-6	6' RG8 foam/silver teflon PL259s	14.99
CXP008C-25	25' RG8 foam/silver teflon PL259s	25.99
CXP008C-50	50' RG8 foam/silver teflon PL259s	37.99
CXP008C-75	75' RG8 foam/silver teflon PL259s	49.99
CXP008C-100	100' RG8 foam/silver teflon PL259s	61.99
CXP008C-125	125' RG8 foam/silver teflon PL259s	77.99
CXP213C-6	6' RG213/silver teflon PL259s ...	14.99
CXP213C-15	15' RG213/silver teflon PL259s	22.99
CXP213C-25	25' RG213/silver teflon PL259s	25.99
CXP213C-50	50' RG213/silver teflon PL259s	37.99
CXP213C-75	75' RG213/silver teflon PL259s	49.99

Cbl Xperts - continued

		AES Price
CXP213C-100	100' RG213/silver teflon PL259s	61.99
CXP08XCC-3	3' RG8X clear/silver teflon PL259s	11.99
CXP08XC-25	25' RG8X/silver teflon PL259s .	18.99
CXP08XC-50	50' RG8X/silver teflon PL259s .	24.99
CXP08XC-75	75' RG8X/silver teflon PL259s .	28.99
CXP08XC-100	100' RG8X/silver teflon PL259s	32.99
CXP058ARBS-3	3' RG58/BNC male- SO-239	15.99
CXP142SBJ-3	3' RG142/SMA male - BNC female	20.99
CXP08XCB-3	3' RG8X/male BNCs	13.99
CXP08XCB-6	6' RG8X/male BNCs	14.99
CXP522-6	6' keyer hook-up cable w/S-267 plug	19.99
235	1" tinned copper ground braid ....per ft	.99
235	....100 ft. Roll	92.99
2332	½" tinned copper ground braid ...per ft.	.59
2332	....100 ft. Roll	52.99

CASTLE RIDGE (CRO)

SOLID BASE COPPERWELD ANTENNA WIRE

AN-122	100 feet No. 12	$ 26.99
AN-123	150 feet No. 12	36.99
AN-124	250 feet No. 12	52.99
AN-126	500 feet No. 12	94.99
AN-128	1000 feet No. 12	159.99
AN-142	100 feet No. 14	21.99
AN-143	150 feet No. 14	26.99
AN-144	250 feet No. 14	36.99
AN-146	500 feet No. 14	64.99
AN-148	1000 feet No. 14	109.99
AN-181	250 feet No. 18	15.99
AN-182	500 feet No. 18	26.99

CELESTRON (CEL)

4020	40x dissecting microscope	$ 79.99
4030	40-500x educational microscope	119.99
4050	40/100/400x biological microscope	199.99
11011	NexStar 8 telescope ....D	1499.99
11015	Celestar 8 telescope ....D	1099.99
94162	Solar filter for Nexstra 8/Celestar 8	79.99
11021	NexStar 8i telescope	1199.99
93501	Heavy duty tripod	299.99
93593	Standard tripod	149.99
93962	NexStar hand control	149.99
93963	GPS module - CN16	199.99
11032	NexStar 5 telescope w/tripod ....D	1049.99
93593	Deluxe tripod for 11032/Nexstar 5 ..	149.99
11033	NexStar 5i telescope	899.99
93497	Standard tripod	149.99
93962	NexStar hand control	149.99
93963	GPS module - CN16	199.99
11051	G-5 w/motor drive telescope	749.99
11052*	Nexstar 8 GPS telescope	2499.99
	***$500 rebate from Celestron thru 10/31/02**	
11053	NexStar 11 GPS telescope	2999.99
21072	Firstscope 80 EQ-WA refractor telescope . D	249.99
94135	Solar filter for Firstscope 80EQ-WA .	34.99
22062	NexStar 60GT telescope	249.99
22082	NexStar 80GT telescope	349.99
302160	Soft case for Nexstar 60/80 ....Δ	79.99
94135	Solar filter for Nexstar 60GT/80GT ..	34.99
31034	Tabletop 76 reflector telescope	99.99
31044	Firstscope 114 4.5" reflector telescope ..	249.99
31056	C150-HD reflector telescope	399.99
31058	G-8N 8" Newtonian reflector telescope	449.99
31142	NexStar 114GT telescope	439.99
50025	30mm mini spotting scope w/tripod ..	59.99
52200	60mm pro zoom spotting scope	199.99
52211	60mm wildlife zoom spotting scope/tripod	169.99

LENSES (not for 31034)

93213	1.25" 2x economy Barlow lens ....D	$ 9.99
93308	1.25" 6mm ocular Plossl lens	49.99

Celestron - continued

	AES Price
93310 1.25" 10mm ocular Plossl lens	49.99
93312 1.25" 17mm ocular Plossl lens	49.99
93507 1.25" 2x deluxe Barlow lens	59.99
94303* Plossl lens/filter kit w/carrying case †	99.00
*w/purchase of Celestron scope ONLY ends 12/31/02	
51630 Star pointer finderscope	30.99
93590 Red Astro Lite flashlight	5.99
93700 CD-ROM "The Sky for Celestron"	29.99
93720-40 Planisphere & planet finder	9.99
93722 Sky Map	19.99
94118-S1 1.25" eyepc filt set; 21/80A/ND-13/polar	69.99
94119-A 1.25" moon filter	16.99
94126-A Model A LPR filter; for 1¼" eyepieces	69.99
94301 Starter kit Δ	79.99

Sorry, no exports on Celestron products.

CENTAUR (CEN)

B11W10-50 1:1 3kw PEP balun for dipole	$ 54.99
B11Y10-50 1:1 3kw PEP balun for yagi	54.99
B41Y10-50 4:1 3kw PEP balun for yagi	69.99
B41LW10-50 4:1 ladder line to coax balun	69.99

Channel Master (CHA)

9521A Prog light duty rotor/IR rem cont/3-wire	$ 99.99

CLOCKS

BMI **972AD** 14" 12/24-hour wall clock	$ 32.99
BMI **973A** 12" 24-hour wall clock	49.99
MFJ **105C** 24-hour quartz wall clock	19.99
MFJ **107B** 24-hour digital clock	9.99
MFJ **108B** 24/12-hour dual disp digital clock	19.99
MFJ **112B** Deluxe world map clock	24.99
MFJ **113** 24/12-hr 1.8" LED clock/batt back-up	19.99
MFJ **115** DX'er 24-hr analog world wall clock	24.99
MFJ **116DC** 12-hour 12vdc LED clock Δ	9.99
MFJ **118** Giant 24/12 hour LCD clock	24.99
MFJ **123** Eternity solar atomic clock	79.99
MFJ **125** Calendar 24-hour analog wall clock	29.99
MFJ **132AT** 12-hour LCD see-thru clock Δ	14.99
MFJ **152B** Thermo clock; in/out temp/12/24-hr D	24.99
ORE **BA-812E** The weather clock D	19.99
ORE **JMR-828** Jumbo atomic clock w/rem temp	69.99
ORE **RM-116E** Exactset radio controlled clock	39.99

COAX SEAL (UNV)

104 ½" x 60" coax seal	$ 3.99

Coaxial Dynamics (COA)

81000-A Wattmeter w/SO-239s	$260.99
83000-A Peak reading wattmeter w/SO-239s	393.99
82004 50w 2-30MHz element	87.99
82005 100w 2-30MHz element	87.99
82006 250w 2-30MHz element	87.99
82007 500w 2-30MHz element	87.99
82008 1000w 2-30MHz element	87.99
82009 2500w 2-30MHz element	125.99
82010 5000w 2-30MHz element	125.99
82013 10w 25-60MHz element	71.99
82014 25w 25-60MHz element	71.99
82015 50w 25-60MHz element	71.99
82016 100w 25-60MHz element	71.99
82029 10w 100-250MHz element	71.99
82031 50w 100-250MHz element	71.99
82033 250w 100-250MHz element	71.99
82046 10w 400-1000MHz element	71.99
82048 50w 400-1000MHz element	71.99
82049 100w 400-1000MHz element	71.99
88000 N female quick match connector each	9.99
88800 Carrying case for meter	55.99

COBRA (COB)

18WX ST Sound Tracker AM Mobile CB w/WX D	$ 59.99
25NW ST Night Watch Sound Tracker AM Mob CB D	79.99

Cobra - continued

	AES Price
29NW ST Night Watch Sound Tracker AM Mob CB D	89.99
HH-36 ST Sound Tracker handheld CB D	34.99
HH-38WX ST Sound Tracker HH CB w/WX Δ	69.99
19DX III AM Mobile CB	49.99
19LTD II AM Mobile CB	54.99
21LTD ST Sound Tracker AM Mobile CB	74.99
25LTD (25LTD Classic) AM Mobile CB	89.99
25WXNW ST Night Watch Sound Tracker AM Mob CB/WX	109.99
29LTD (29LTD Classic) AM Mobile CB	99.99
29NW Night Watch AM Mobile CB	119.99
29WXNW ST Night Watch Sound Tracker AM Mob CB/WX	129.99
75WX ST Sound Tracker AM Mobile CB w/WX	99.99
HH-37 ST Sound Tracker handheld CB	59.99
HH-Road Trip Sound Tracker HH CB/WX/mag ant	79.99
148NW ST Night Watch Sound Tracker SB/AM Mob CB	179.99
AT-60 Trunk lip/roof mt CB antenna D	10.99
CA-77 Noise canx/amplified mobile mic D	12.99
HGA-1000 Magnet mt CB antenna	19.99
HGM-77 Noise canx/amplified mobile mic	29.99
FRS-200 Family radio service handheld D	19.99
PR-950-2DX* 22ch 2w GMRS/FRS HH pair	99.99

***$10 consumer rebate from Cobra thru 12/31/02**

COMET (CMT)

MOBILE ANTENNAS

B-10 2m/440 2.15db 12" cell look-alike ant	$ 39.99
B-10NMO 2m/440 2.15db 12" cell look-alike NMO	39.99
C-757 2m/440 2.15/5.5db 38" foldover ant	54.99
C-757NMO 2m/440 2.15/5.5db 38" foldover NMO	54.99
C-767 2m/440 3.5/6db 40" foldover ant	59.99
C-767NMO 2m/440 3.5/6db 40" foldover NMO	59.99
CA-2X4SR 2m/440 3.8/6.2db 40" mob ant	64.99
HA-050 6m 33" ¼ wave mobile antenna	72.99
HP-32 2m/440 3/5.5db 34" 350/250w ant	89.99
M-24B 2m/440 1.7/4.1db mag mt ant w/BNC	39.99
M-24M 2m/440 1.7/4.1db mag ant w/PL259	39.99
SBB-1 2m/440 1.5/2.15db 16" flex mobile	39.99
SBB-1NMO 2m/440 1.5/2.15db 16" flex NMO	39.99
SBB-2 2m/440 2.15/3.8db 18" black mobile	39.99
SBB-2NMO 2m/440 2.15/3.8db 18" blk NMO	39.99
SBB-5 2m/440 3/5.5db 38" black mobile ant	54.99
SBB-5NMO 2m/440 3/5.5db 38" black NMO	54.99
SBB-7 2m/440 4.5/7.2db 4' 7" black mob ant	74.99
SBB-7NMO 2m/440 4.5/7.2db 4' 7" blk NMO	74.99
SB-14 6m/2m/440 43" chrome mobile ant	64.99
SB-15 6m/2m/440 2.15/4.5/7.2db 5' chr mob	79.99
SBB-25 2m 4.1db black mobile antenna	44.99
SBB-25NMO 2m 4.1db black NMO mob ant	44.99
SB-97 2m/440/1.2 3/6.8/9.6db 39" type N	79.99
SB-123 1.2GHz 7.2db 24" type N mobile ant	49.99
SBB-224 2m/220/440 2.15/3.2/5.5 blk mob	74.99
SBB-224NMO 2m/220/440 2.15/3.2/5.5 blk NMO	74.99
SF-245 2.4 GHz 7db 18" fg type N ant	69.99
UHV-6 40/15/10/6/2m/440 7' 2" mobile ant	149.99
L-3.5 80m loading coil for UHV-6	34.99
L-14 20m loading coil for UHV-6/CA-HV	29.99
L-18 17m loading coil for UHV-6/CA-HV	29.99
Z-750 2m/440 2.1/5.5db 39" theft resistant D	59.99

MOBILE MOUNTS

3D4M Mobile mt, 13' coax w/UHF connectors	$ 24.99
3D4N Mobile mt, 13' coax w/type N	28.99
3D5M Mobile mt, 16.5' coax w/UHF connectors	27.99
5D4N Roof mount, 13' coax w/type N	31.99
AD-10N NMO mount to female N adapter	17.99
AD-15M NMO mount to SO-239 adapter	17.99
AD-25M SO-239 to NMO mount adapter	14.99
CK-3M Dlx 2-step 10' cable w/UHF connectors	33.99
CK-3M5 Dlx 2-step 16.5' cable w/UHF connects	39.99
CK-5N Dlx 13' cable assembly w/type N	47.99
CM-5M Hvy duty mag mt, coax, max 4' ant	24.99
CQ-5M Dlx black QD trunk lip mt w/17' coax	66.99

Comet - continued

	AES Price
CQ-5N Dlx black QD tnk lip mt/17' coax/N	69.99
CP-5M Hvy duty UHF mt (RS-730) w/16.75' coax	66.99
CR-5M Std coax assy, 16.5' coax, UHF conn	19.99
CT-5M Trunk lip mount w/16.5' coax	39.99
GR-5M Dlx tnk lip mt w/ coax; matches SB	67.99
GR-5N Dlx N tnk lip mt w/ coax; matches SB	69.99
RS-9 Trunk lip mount, no coax	11.99
RS-520 Mini heavy duty trunk/hatch mount	28.99
RS-560C Luggage rack mount, no coax	35.99
RS-720 Hatch/rear door/tnk multi-adj mt	28.99
RS-720NMO Hch/rear door/tnk multi-adj NMO mt	28.99
RS-730 HD rear van/SUV door/tnk lip mt, no coax	29.99
WS-1M Window clip mt w/UHF connectors	59.99

BASE STATION ANTENNAS

CA-712EF 440 9db 10' 5" base antenna	$109.99
CA-ABC22A 2m 6,5db 9' 5" base/rptr ant	69.99
CA-ABC23 2m 7.8 db 13' 4" base/rptr ant	99.99
CA-F72GF 440-470 6db 3' 6" tunable ant	109.99
CA-52HB4 6m 4 el 10.4db 10' 6" boom beam	119.99
CX-333 2m/220/440 6.5/7.8/9db 10.25' ant	179.99
CYA-1216E 1.2GHz 16el 16.6db 4' 5" bm N beam	139.99
CYA-2412 2.4GHz 12el 15.5db 2' 6" bm N beam D	129.99
DS-15 6m/2m/440/900/1.2 discone antenna	99.99
GH-50 6m 2.15db 7' 10" fg base antenna	99.99
GP-3 2m/440 4.5/7.2db 5' 11" base/rptr ant	99.99
GP-6 2m/440 6.5/9db 10' 2" base/rptr ant	149.99
GP-9 2m/440 8.5/11.9db 17' 8" base/rptr	179.99
GP-9N 2m/440 8.5/11.9db 17' 8" N base/rptr	179.99
GP-15 6/2m/440 3/6.2/8.6db 7' 11" base	154.99
GP-21/CA-1221S 1.2 14.8db 8' N base/rptr	149.99
GP-24 2.4GHz 12.4db 5' 11" N base/rptr	199.99
GP-24S 2.4GHz 9.9db 3' 7" N base/rptr	139.99
GP-98 2m/440/1.2 6.5/9/13.5db 9' 8" N ant	189.99
KP-20 900 MHz 9.2db 7' 4" type N base/rptr	112.99
PYA-913 900MHz 13el 15.8db 4' 8" type N beam	159.99

DUPLEXERS AND TRIPLEXERS

CF-142 1.3-150/200-480 600/400w UHF/leads	$ 69.99
CF-360A 1.3-30/50-470 600w UHF w/leads	69.99
CF-360B 1.3-30/50-470 600w UHF/common lead	69.99
CF-416A 2m/440 800/500w UHF w/leads	46.99
CF-416B 2m/440 800/500w UHF/N w/leads	46.99
CF-416C 2m/440 800/500w N/UHF/N leads	49.99
CF-416W 1.3-250/400-1400 400/200w N/leads	69.99
CF-530 1.3-90/125-470 600w UHF w/leads	69.99
CF-706A 1.3-56/75-470 350w UHF w/leads	69.99
CF-4160I 2m/440 800/500w UHF/UHF/N, no leads	45.99
CF-4160J 2m/440 800/500w SO239, no leads	53.99
CF-4160K 2m/440 800/500w all UHF, no leads	45.99
CFX-324A 2m/220/440 600w UHF w/leads	88.99
CFX-324B 2m/220/440 600w UHF, no leads	85.99
CFX-514 HF/2m/440 800/800/500w UHF w/leads	79.99
CFX-514J HF/2m/440 800/800/500w UHF, no leads	74.99
CFX-514N HF/2m/440 800/800/500w UHF/N w/leads	79.99
CFX-4310C 1.3-150/440/1.2 triplexer, no leads	79.99
CFX-5140 HF/6m/2m/440 800/800/500w UHF, no leads	74.99

HT & HANDHELD SCANNER ANTENNAS

BNC-24 2m/440 17" 2.15/5.3db BNC whip	$ 22.99
CH-32 2m/440 1.75" BNC Miracle Baby ant	29.99
CH-75 2m/440 0/3.2db 14.75" BNC ant	25.99
CHF-412 40/15/2m 28" BNC duck; FT-817 .D	59.99
CHF-816 80/10/6m 28" BNC duck; FT-817 .D	59.99
HM-05 18" BNC male - SO-239 adapter/cable	9.99
HS-05 18" SMA male - SO-239 adapter/cable	9.99
HT-224 2m/220/440 11" SMA antenna	47.99
SH-55 2m/440 1.5/3.2db 15" BNC ant	33.99
SH-95 2m/440/1.2 1.5/2.15/5.5db BNC ant	34.99
SMA-3 2m/440 1.2/1.7db 9.75" SMA ant	39.99
SMA-24 2m/440 17" 2.15/5.3db SMA whip	22.99
SMA-501 2m/440/900 1.5" SMA antenna	29.99
SMA-503 2m/440 8.75" SMA antenna	29.99
SMA-703 2m/440/1.2GHz 6.5" SMA ant	31.99

AES Price

Comm Outfitters (COF)

EXP-1	Expedition Pack for Yaesu FT-817	$ 99.99

COMM-SPEC (COM)

ID-8	Automatic morse station identifier	$ 69.99
SS-64	64-tone mini prog CTCSS encoder	28.99
TE-32	32-tone CTCSS prog encoder box	49.99
TS-64DS	64-tone CTCSS prog encoder/decoder	57.99

CONNECTORS

AMPHENOL COAX CONNECTORS (AMP)

83-1SP-1050	Male coax plug (PL-259)	$ 1.99
83-1SP	Silver plated coax plug (PL-259)	2.99
Van Gorden (VAN) silver plated	teflon PL-259	2.99
83-185	Reducer for RG-58 (UG-175)	.99
83-168	Reducer; RG-59/RG-8X (UG-176)	.99
83-1AP	Right angle adaptor (UG-646)	8.99
83-1J	Double female adaptor (PL-258)	4.99
83-1R	Female chassis mt socket (SO-239)	3.99
83-1H	Hood; in-line use w/83-1R (UG-106) †	3.99
83-1T	T-connector adaptor (M-358)	11.99
83-877	Double male adaptor	12.99
83-878	Single hole ⅜" chassis socket	2.99
31-002	BNC male connector for RG-58	4.99
31-012	BNC male connector; RG-59/RG-8X	5.99
31-221	BNC female chassis socket	2.99
82-24	Type N female chassis mt socket	7.99
82-61	Type N male connector for RG-8	7.99
82-64	Type N right angle adaptor †	14.99
(VAN) N connector	Type N connector for 9913	4.99
82-202-1006	Type N male; 8214/9913/9913F	7.99
82-209	Type N female in-line for RG-8	9.99
34025	Type N male connector for RG-58	6.99

AMPHENOL COAX ADAPTORS (AMP)

2900	SO-239 to BNC male adaptor	$ 14.99
4400	SO-239 to type N male adaptor	14.99
31-28	BNC female to PL-259 adaptor †	16.99
(HOU) SMA-872	SO-239 to SMA plug adaptor	5.99

AIM CONNECTORS, PLUGS & ADAPTORS (AIM)

19-1289	8-pin female mic plug	$ 4.99
25-7351	Chassis mt SO-239 double female	3.99
25-7365	BNC female to SO-239	3.99
25-7420	BNC male to SO-239	2.99
26-8010	Type N double female	3.99
26-8011	Type N chassis mount	2.99
26-8015	N male to SO-239	4.99
26-8016	BNC female to N male	4.99
26-8017	BNC male to N female	4.99
26-8027	N male for RG-8X	4.99
27-8120	BNC female to PL-259	2.99
27-8130	BNC double male	3.99
27-8140	BNC T; 2 female, 1 male	2.99
27-8142	BNC T, 3 male Δ	.49
27-8450	BNC chassis mt, 4 screw holes	2.99
27-8460	⅜" hole BNC chassis mt	1.99
27-8470	Dual BNC chassis mount	3.99
29-3855	BNC female to SMA male	3.99
29-4140	SO-239 to mini PL-259	2.99

VANCO MICROPHONE CONNECTORS (VCO)

CBC-2P	Panel mt 2-pin male Δ	$ .09
CBC-3	3-pin female mic plug Δ	.69
CBC-3P	Panel mt 3-pin male Δ	.09
CBC-4	4-pin female mic plug	4.99
CBC-4P	Panel mt 4-pin male Δ	.49
CBC-5	5-pin female mic plug	3.99
CBC-5P	Panel mt 5-pin male Δ	.09
CBC-6	6-pin female mic plug	4.99
CBC-6P	Panel mt 6-pin male Δ	.09
(AIM) 19-1289	8-pin female mic plug	4.99
CBC-8P	Panel mt 8-pin male	5.99
P-5D	5-pin DIN plug Δ	.19

Connectors - continued

AES Price

KENWOOD DIN PLUGS (KEN)

7-pin DIN	plug	$ 4.99
8-pin DIN	plug	6.99
13-pin DIN	plug	9.99

VANCO Mic Holders/Mini Plugs/Cig Plugs (VCO)

MH-1	Magnetic mic holder	$ 1.99
MH-2	Regular mic holder	1.99
P-25	2.5mm sub-miniature phone plug Δ	.05
P-35	3.5mm miniature phone plug	.99
(HOU) AP-115	½" metal stereo plug	2.99
(HOU) AP-135	3.5mm stereo mini phone plug	.99
P-12R	2-contact cigarette plug	1.99
P-12V	Cig lighter plug w/leads	1.99
P-212	2-outlet cigarette plug adapter	4.99
P-212B	Dual cigarette lighter socket adapter	8.99

Connect Systems (CSY)

CS-800	Full duplex patch & repeater controller	$369.99
CS-900	Simplex interconnect	369.99

CROSS DEVICE (CRS)

STUF	Coax connector waterproofing filler	$ 4.99

CUSHCRAFT (CUS)

At Cushcraft's request, amateur radio dealers are not authorized warranty depots for Cushcraft Antennas. All warranty issues should be directed to the Technical Support Department/Warranty at Cushcraft (603) 627-7877.

VHF/UHF FM BEAMS* (Vertical polarization)

A148-3S	2m, 3 el wideband beam, 7.8db	$ 62.99
A148-10S	2m, 10 el wideband beam, 13.2db	99.99
A449-6S	440 MHz, 6 el, 3' boom, 10 db	58.99
A449-11S	440 MHz, 11 el, 4.5' boom, 13 db	79.99

*Antennas can be mounted vertically or horizontally!

2M/440 FM BEAMS* (Vertical polarization)

A270-6S	2m/440, 3/3 el, 2.8' boom, 7.8 db	$ 79.99
A270-10S	2m/440, 5/5 el, 6.17' boom, 10 db	99.99

*Antennas can be mounted vertically or horizontally!

TRI-BAND 6M/2M/440 BEAMS

A6270-13S	6m/2m/440, 3/5/5el, 8.66'bm, 8/10/10db	$179.99
ASL-670	50-450MHz 14el 6.7' boom 6db LP	249.99

FM RINGOS - 1/2 Wave Verticals

AR-10	10m FM Ringo, 17.6', 3db, 1000w	$ 79.99
AR-6	6m FM Ringo, 10.1', 3db, 1000w	79.99
AR-2	2m FM Ringo, 3.9', 3db, 1000w	49.99
AR-450	440MHz FM Ringo, 1.4', 3db, 500w	36.99

RINGO RANGERS - FM Verticals

ARX-2	2m FM Ringo Ranger	$ 59.99
ARX-2B	2m FM Ringo Ranger II, 14', 7db, 1000w	69.99
ARX-220B	220 FM Ringo Ranger II, 9.3', 7db, 500w	69.99
ARX-450B	440FM Ringo Ranger II, 4.9', 7db, 500w	69.99

DUAL-BAND 2M/440 FM RINGOS

AR-270	2m/440MHz FM, 3.75', 3/5.5db, 250w	$ 94.99
AR-270B	2m/440 MHz FM, 7.7', 5.5/7.5db, 250w	99.99

TWIST, OSCAR BEAMS (Horiz/Vert Polarization)

A148-20T	2m 20el 10.8'bm 11.1db twist	$139.99
719B	432 19 el 13.5' boom 15.5db	149.99

BOOMER ANTENNAS

124WB	2m Boomer, 4 el, 4' boom, 10.2 db	$ 89.99
13B2	2m Boomer, 13 el, 15' boom, 15.8 db	149.99
17B2	2m Boomer, 17 el, 31' boom, 18 db	239.99
26B2	2 13B2s vertically stacked	399.99
224WB	220 Boomer, 4 el, 3' boom, 10.2db	74.99

BOOMER POWER DIVIDERS

PD-2	Power divider for 2 13B2s	$ 64.99
PD-4	Power divider for 4 13B2s	79.99

VHF/UHF BEAMS* (Horizontal polarization)

A50-3S	6m, 3 el, 6' boom, 8 db, stainless hdwre	$114.99
A50-5S	6m, 5 el, 12' boom, 10 db, stainless hdwre	179.99
A50-6S	6m, 6 el, 20' boom, 11db, stainless hdwre	289.99

Cushcraft - continued

AES Price

A148-10S	2m, 10 el wideband beam	99.99
A430-11S	430 MHz, 11 el, 4' boom, 13 db	79.99

*Antennas can be mounted vertically or horizontally!

MOBILE ANTENNAS

CS-28M	10m magnet mt antenna	$ 64.99
CS-50M	6m magnet mt 3 db antenna	64.99
CS-147M	2m magnet mt 3 db antenna	64.99
CS-147A	2m coil & whip only	46.99
CS-220M	220 magnet mt 3 db antenna	64.99
CS-450M	440 magnet mt 5 db antenna	64.99

DUAL-BAND 2M/440 MOBILE ANTENNAS

CS-270M	2m/440 3.7/6 db magnet mt ant	$ 84.99
CS-270A	2m/440 coil & whip only	59.99

MOUNTS ONLY FOR MOBILE ANTENNAS

CS-MG	Magnetic mount	$ 30.99
CS-MGN	Magnetic mount w/N connector	35.99
CS-TL	Trunk lip mount	30.99

MULTIBAND HF VERTICAL ANTENNAS

MA-5V	20/17/15/12/10m 14.7' vertical ant	$199.99
R-6000	20/17/15/12/10/6m 19' vertical	319.99
R-8	40/30/20/17/15/12/10/6m 28.5' vert	469.99
R-8GK	Guy kit for R-8	49.99

ROTATABLE HF DIPOLES

D-3	20/15/10m World Ranger dipole	$229.99
D-3W	30/17/12m rotatable dipole	229.99
D-4	40/20/15/10m World Ranger dipole	339.99
D-40	40m World Ranger dipole	289.99

BIG THUNDER HF TRI-BAND BEAM

X-7	20/15/10m, 7 el, 18' boom, 12.5/13db	$649.99
X-740	40m add-on kit for X-7	319.99

BIG THUNDER HF MONOBAND BEAM

XM-240	40m, 2 el, 23' boom, 7 db	$699.99
TEN-3	10m, 3 el, 8' boom, 8 db	199.99

MULTIBAND HF BEAM ANTENNAS

A-3S	20/15/10m, 3el, 14'bm, 8db, stainless hdwr	$429.99
A-743	40m or 10 MHz add-on kit; A-3/A-3S	169.99
A-4S	20/15/10m, 4el, 18'bm, 8.9db, stainless hdwre	529.99
A-744	40m or 10 MHz add-on kit; A-4/A-4S	169.99
A-3WS	17 & 12m, 3 el, 14' boom, 8 db	349.99
A-103	30m add-on kit for A-3WS	169.99
ASL-2010	13.5-32MHz 8el 18' bm 6.4db LP	729.99
MA-5B	20/17/15/12/10m 7.3' boom mini beam	329.99

LIGHTNING ARRESTORS

LAC-4	200w SO-239 gas tube arrestor	$ 40.99
LAC-4H	2kw SO-239 gas tube arrestor	45.99
LAC-4N	200w type N gas tube arrestor	52.99
LAC-4NH	2kw type N gas tube arrestor	56.99
LC-2	Extra 200w cartridge for LAC-4/4N	17.99
LC-2KW	Extra 2kw cartridge for LAC-4H/4NH	20.99
5VB	Vinyl connector boots pack of 5	15.99

Cutting Edge (CUT)

POWER PORT

HI-D1	Radio glove; Ali DJC5T/DJX2T/Yae VX1R	$ 19.99
HI-5X	Radio glove; Ico IC-Q7/R-2/Yae FT-11	19.99
HI-51	Radio glove; Yaesu VX-5R	19.99
HI-6	Radio glove; ADI PR52/Ali S11/V5/Ico T81/Yae FT50	19.99
HI-61	Radio glove; ADI AT201HP/Yae VX150 Δ	6.99
HM-817	WorldPouch; Yaesu FT-817	73.99
HMP-II	WorldPack II backpack; mini HF Xcvr	67.99
HP-7AF	7AH gel-cell w/2.5 hr fast cgr D	69.99
HP-8AF	8AH gel-cell w/2.5 hr fast cgr	129.99
HPP-7A	7AH gel-cell w/overnight cgr D	34.99
HPP-8A	8AH gel-cell w/overnight cgr	73.99
PPMMDC	Multi-tip/volt reg DC-DC adapt Δ	14.99
PPSCA	Solar cell cigarette adapter	10.99

DCI (DCI)

145-2H	2m 144-146MHz 200w bandpass filter	$ 99.99
146-4H	2m 144-148MHz 200w bandpass filter	99.99

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

DCI - continued

AES Price

223.5-3H 222-225MHz 200w bandpass filter 109.99
2m/220 models w/N connectors add $10 special order
435-10C 430-440MHz 200w N bandpass filt 119.99
445-10C 440-450MHz 200w N bandpass filt 119.99
146/444-DB 144-148/438-450 200w bp filter 169.99

DC SALES (DCS)

Tenna Hitch ⅜-24 trailer hitch antenna mt .. $ 38.99

DAIWA (DAI)

CN-101 1.8-150 15/150/1.5kw SWR/pwr meter/light $ 99.99
CN-103M 140-525 20/200w SWR/power meter 99.99
CN-801H 1.8-200 20/200/2kw SWR/pwr meter 149.99
CN-801V 140-525 20/200w SWR/power meter . 154.99
CS-201 2-position 600 MHz coax switch 26.99

DAVIS (DAV)

6150 Wireless Vantage Pro weather station .. $539.99
7400 Perception II indoor WX unit 139.99
7425 Wizard III weather station 179.99
7440 Monitor II weather station 269.99
7852 Rain Collector II, 0.01" 69.99
7977 Electronic rain counter, 0.01" .....D 6.99
7859 External temp/humd Sensor II; 7440 119.99
7862 Weatherlink Win interface/software ... 149.99
7866 Weatherlink Mac interface/software .. 149.99
7870 Modem adapter for 7862/7866 ...Δ 2.99
7867 Weatherlink Mac to Win conv kit ....Δ 6.99
7868 Weatherlink Win to Mac conv kit ....Δ 6.99
7873 Cig lighter power cord 9.99
7876-040 4-conductor 40' extension cable 18.99
7878-040 6-conductor 40' extension cable 22.99
7880 8-conductor 25' junction box cable Δ 6.99
7881 8-conductor 50' junction box cable .. 25.99
7882 8-conductor 100' junction box cable 45.99
7890 Mast mount for anemometer 16.99
0131 Weather forecasting quick reference card 9.99
0271 Turbo Meter handheld dig wind indicator 139.99
0281 Wind Wizard handheld wind indicator .. 47.99

DIAMOND (DIA)

SWR/POWER METERS

SX-20C HF/6m/2m 30/300w meter ..... $ 89.99
SX-40C 144-470 (220 w/correction) 15/150w 79.99
SX-100 1.6-60 MHz 30/300/3kw PEP meter .. 134.99
SX-200 1.8-200 MHz 5/20/200w PEP meter .. 94.99
SX-400 140-525 MHz 5/20/200w PEP meter . 114.99
SX-600 Dual band 1.8-160 /140-525 200w PEP mtr . 169.99
SX-1000 1.8-160/430-1300MHz 200w PEP meter . 214.99

HT & HANDHELD SCANNER ANTENNAS

RH-3 2m/440 1.75" BNC mini HT duck ..... $ 24.99
RH-77CA 2m/440 15" BNC rubber gain ant .. 24.99
RH-205 2m ⅝ wave telescopic HT antenna ... 24.99
RH-519 2m/440 8.3" flexible BNC whip 27.99
RH-707 2m/440 8¼" tiltable BNC whip 33.99
RH-951S 2m/440/1.2GHz 15" BNC slim duck 44.99
SRH-77CA 2m/440 15" SMA rubber gain ant 29.99
SRH-519 2m/440 8.3" flexible SMA whip 32.99
SRH-805 2m/440/1.2GHz 1.75" SMA ant 27.99
SRH-815 2m/440/1.2GHz 6" flex SMA whip .. 36.99
SRH-999 6m/2m/440/1.2GHz 20" SMA whip . 59.99

MONO-BAND MOBILE ANTENNAS

HF-6FX 6m 2.15db 44" mobile antenna ..... $ 69.99
HF-50CX 6m 3.5db 71" mobile antenna 99.99
M-285 2m 3.4db 52.4" mobile antenna 31.99
M-685 6m 2.15db 52.4" mobile antenna 31.99
MG-200 2.4GHz 7db 23.6" N mobile ant 99.99
NR-2C 2m 4.1db 55.5" mobile antenna 39.99
NR-22L 2m 6.5db 96.8" mobile antenna 69.99
NR-124 1.2GHz 8.4db 25" N mobile antenna 64.99
SG-2000HD 2m 5.2db 62.6" 250w mob ant .. 89.99

Diamond - continued

AES Price

DUAL-BAND MOBILE ANTENNAS

MR-77 2m/440 2.15/3.4db 20" magnetic ant $ 39.99
MR-77SMA 2m/440 2.15/3.4db 20" mag w/SMA 44.99
NR-72BNMO Black 2m/440 2.15db 14" NMO 41.99
NR-73BNMO Blk 2m/440 2.15/5.5db 34" NMO 57.99
NR-770HA 2m/440 3/5.5db 40" mobile ant .. 56.99
NR-770HB Black 2m/440 3/5.5db 40" mobile 59.99
NR-770HNMO 2m/440 3/5.5db 40" NMO mobile 56.99
NR-770HBNMO Blk 2m/440 3/5.5db 40" NMO 59.99
NR-770RA 2m/440 3/5.5db 39" mobile ant .. 51.99
SG-M510 2m/440 2.15/5.5db 37" mob ant ... 59.99
SG-7000A 2m/440 2.15/3.8db 19" mobile 69.99
SG-7500A 2m/440 3.5/6db 41" mobile ant ... 79.99
SG-7500NMO 2m/440 3.5/6db 41" NMO ant .. 79.99
SG-7900A 2m/440 5/7.6db 62" mobile ant ... 114.99

TRI-BAND MOBILE ANTENNAS

CR-320A 2m/220/440 2.15/3.8/5.5db 36" .... $ 89.99
CR-627B 6m/2m/440 2.15/4.5/7.2db 60" ant 99.99
CR-627BNMO 6m/2m/440 2.15/4.5/7.2db 60" 99.99
HV-7A 10/6/2m/440 54" UHF mount mobile ant 109.99
HVC-7 40m loading coil for HV-7A/MV-3A . 44.99
HVC-14 20m loading coil for HV-7A/MV-3A 37.99
HVC-18 17m loading coil for HV-7A/MV-3A 37.99
HVC-21 15m loading coil for HV-7A/MV-3A 37.99
NR-2000NA 2m/440/1.2 3.15/6.3/9.7db 39" N mob 89.99
SG-M911 6m/2m/440 2.15/3/5.8db 41" mob 69.99

MAGNET MOUNTS

DPK-4NM-M Hvy mag mt, Yae N, 45" max ..D $ 14.99
DPK-4NM-N Hvy dty mag mt, cbl, N, 45" max 45.99
K-702M Hvy duty mag mt, 6⅜" dia, 50" max 49.99
SPM-35 Hvy duty mag mt, cable, 45" max 39.99
SPM-NMO Hvy dty NMO mag mt, cbl, 45" max 44.99

TRUNK LIP MOUNTING KITS

K-200 Folding hatch/tnk mt; NR/SG ants ...D $ 14.99
K-200KM Folding hch/tnk mt/coax; NR/SG ..D 49.99
K-400 Hatch/trunk mt; NR/SG antennas 39.99
K-400C Hatch/trunk mt w/coax; UHF mount . 69.99
K-400CNMO Hatch/trunk mt w/coax; NMO mt 69.99
K-400S Hatch/trunk mt w/coax; UHF mt/SMA 79.99
K-400SNMO Hatch/trunk mt w/coax; NMO/SMA 79.99
K-400-3/8C Trunk mount w/6.5' cable; ⅜-24 69.99
C-110 10' extension cbl; K-400C/S//3/8C .. 14.99
K-412C Light duty hatch/tnk mt w/coax; UHF mt 59.99
K-412CNMO Light duty hatch/tnk mt w/coax; NMO 59.99
K-412S Light duty hatch/tnk mt w/coax; UHF/SMA 69.99
K-412SNMO Lt duty hatch/tnk mt/coax; NMO/SMA 69.99
C-110 10' extension cable for K-412 mts .. 14.99
K-600M Tilt angle trunk mt w/cable 57.99
K-601M SO-239 hideaway trunk mt, 6' coax . 69.99
K-601NMO NMO hideaway trunk mt, 6' coax . 69.99
C-110 10' extension cable for K-601 mts .. 14.99
K-604M Tilt angle trunk mt w/flexible cable . 57.99
K-9000LRM Motorized luggage rack mount .. 109.99
K-9000TM Motorized trunk/hatchback mt 109.99

MIRROR & LUGGAGE RACK MOUNTS & KITS

K-540 Mirror/luggage rack mt; under 45" ..... $ 35.99
K-540KM Mirror/luggage rack mt w/coax 59.99
K-550* Luggage mt; new mini vans (use GLP) 44.99
K-550KM* Luggage mt w/SO-239 base/coax 69.99
*K-550 series not recommended for Yaesu ATAS-100

MOUNTING GROUP HARDWARE

C-101 SO-239 mt, 6.5' RG-316 low-loss coax $ 32.99
C-101NMO NMO mt, 6.5' RG-316 low-loss coax 32.99
C-104SMA 4' RG-58 ext cbl; SMA male & SO-239 16.99
C-105SMA 5' RG-58 ext cable; C-101/SMA male 16.99
C-110 10' ext cable; C-101/K-601/K-400-3/8C 14.99
C-110BNC 10' extension cable to BNC male . 22.99
C-110SMA 10' RG-58 ext cable; C-101/SMA male 22.99
C-211 SO-239 mt, 6.5' coax, 10' coax entend 44.99
C-213 SO-239 mt, 13.5' RG-316 low-loss coax 41.99

Diamond - continued

AES Price

C-213NMO NMO mt, 13.5' RG-316 low-loss coax 41.99
GLP-5N UHF mtg grp hrdwr; mini coax, Yae N D 2.99

MULTIBAND HF BASE VERTICAL ANTENNA

CP-6A 75/40/20/15/10/6m 200w PEP 16' vert $299.99

MONO-BAND BASE STATION ANTENNAS

A-144S5 2m 5 el 37.5" boom 9db beam ..... $ 59.99
A-430S10 430 10 el 43" boom 13db beam 69.99
A-430S15 430 15 el 89" boom 14.8db beam . 89.99
A-502HB 6m 2 el 2.6' boom 6.3db beam 99.99
A-504HB 6m 4 el 10.7' boom 10.8db beam ... 139.99
CP-22E 2m 6.5db 9' base antenna 54.99
DP-GH62 6m 6db 21' base antenna 139.99
F-22A 2m 6.7db 10.5' base antenna 99.99
F-23A 2m 7.8db 15' base antenna 119.99
F-23C1 148-154MHz 7.8db 15' comm base . 173.99
F-718A 440 11.5db 15' type N base antenna 209.99
F-718L 420-430MHz 11.5db ATV N base ant 219.99
G-200 2.4GHz 11db 6' N base antenna 199.99
2400-Y12 2.4GHz 12db 8el 15"bm 25w N beam 129.99

DUAL-BAND BASE STATION ANTENNAS

U-200 440/1.2GHz 8.3/11.7db 6' N base ant $129.99
X-50A 2m/440 4.5/7.2db 5.6' base antenna . 99.99
X-50NA 2m/440 4.5/7.2db 5.6' base N ant ... 99.99
X-200A 2m/440 6/8db 8.3' base antenna 139.99
X-500HNA Hvy duty 2m/440 8.3/11.7db 17.8' N ant 239.99
X-510MA 2m/440 8.3/11.7db 17.2' base ant 184.99
X-510NA 2m/440 8.3/11.7db 17.2' type N ant 184.99
X-700HA 2m/440 9.3/13db 24' type base ant 399.99
X-700HNA 2m/440 9.3/13db 24' type N ant . 399.99

TRI-BAND BASE STATION ANTENNAS

D-130J 25-1300 MHz 200w discone ant ..... $ 89.99
V-2000A 52-54MHz/2m/440 2.1/6.2/8.4db 8.3' 162.99
X-3200A 2m/220/440 6/7.8/8db 10' base 209.99
X-6000A 2m/440/1.2 6.5/9/10db 10.5' N 189.99

DUPLEXERS & TRIPLEXERS

MX-62M HF-6m &2m/440, 12" cables dplxr . $ 74.99
MX-72D HF-2m/440 400/150/100w duplexer 43.99
MX-72H HF-2m/440 duplexer w/12" cables .. 46.99
MX-72N HF-2m/440 dplxr, 440 type N, 12" cables 49.99
MX-214D 2m/220 150/100w dplxr, no cables 69.99
MX-324 2m/220/440 triplexer 99.99
MX-324D 2m/220/440 triplexer, no cables 99.99
MX-2000 HF-6m/2m/440 400/400/250w triplexer 84.99
MX-3000 HF-2m/440/1.2 400/200/100w triplexer 79.99

ACCESSORIES

CA-23RS DC-2500MHz 200w N lightning protect $ 39.99
CA-23RW 2500MHz 200w N waterproof protect 44.99
CA-35R/RS DC-500MHz 400w lightning protect 29.99
CX-210A 1.5kw DC-1000MHz coax switch 44.99
CX-210N 1.5kw DC-1500MHz N coax switch . 74.99
CX-310A HD 3-pos DC-800MHz coax switch . 83.99
DL-30A 15/100w peak 0-500MHz dummy load 27.99
DL-30N 15/100w peak 0-500MHz N dummy load 39.99
GZV-4000 Variable 40A switching ps/meter/spkr 179.99

DRAKE (DRA)

R-8B Shortwave receiver 1379.99
MS-8 1592 Speaker 49.99
1590 35-55, 108-174 MHz VHF converter .. 249.99
7852 R-8B technical manual 39.99
1334 Mobile mount kit for SW-1/SW-2 .....Δ 2.99
1591 Interface computer soft; original R-8 ..D .99

ECG (ECG)

U-105 Light duty antenna rotor/3-wire ..... $ 69.99
TB-105 Thrust bearing 18.99

EASY-UP (UPS OK) (EAS)

EZ 29-24S Stainless double strap chimney mt $ 17.99
EZ 48-3ABX 3' boxed tripod w/pitch pad kit . 24.99
EZ 48-5ABX 5' boxed tripod w/pitch pad kit . 34.99

Easy-Up - continued

	AES Price
EZ-516 5' 16 ga steel mast .....pick-up only	7.99

EMERSON (EME)

ESR-220 Solar/dynamo AM/FM radio/flashlight .	$ 29.99
EVO-6550 2nd 900MHz camera; EVO-6500 D	49.99
EVS-5000 2.4GHz wireless video/audio system	79.99
PDC-803/PMD-8030 Dig compass/LCD backlite	29.99
RP-005 6-func flashing safety strobe/reflector	6.99
RP-103/MTK-001 12-func stainless multi tool	6.99

GE (GEX)

72887 Super Radio III AM/FM radio, AC/DC ..	$ 59.99

GAP VERTICALS (GAP)

DX-VIII Challenger 75*/40/20/15/12/10/6/2m 31.5'	$299.99
*80m CW w/capacitor exchange from GAP	
Challenger Counterpoise	30.99
(SYN) **100'** 3/32" black double braided rope ..	6.99
DX-VI Eagle 40/20/17/15/12/10m 21.5' rigid	309.99
DX-IV Voyager 160/80/40/20m 45'; use 350' guy	419.99
Voyager Counterpoise	55.99
(SYN) **350'** 3/16" black double braided rope ..	39.99
Titan DX 75*/40/30/20/17/15/12/10m, 25' ..	339.99
*80m CW w/capacitor exchange from GAP	
100' Guy Kit with clamp	14.99
200' Guy Kit with clamp	22.99
Ground Mount Quick tilt mt for vertical ant .	79.99
Ladder Mount Quick tilt mt; campers/RVs	79.99

GARMIN (GAR)

GPS-12CX Color GPS receiver .....D	$199.99
GPS-12XL GPS receiver	219.99
GPS-72 Handheld track-plotter GPS	159.99
GPS-III Plus Handheld/dash mt mapping GPS	299.99
GA-26C Low prof rem ant/cbl; GPSIII/III Plus	89.99
GA-27C Low prof rem ant/cbl; GPS-12CX/XL	89.99
010-10048-00 Mounting bracket; 12CX/XL .	31.99
010-10082-00 Power/data cable	27.99
010-10085-00 Cig lighter adapter cable ...	23.99
010-10111-00 Mtg bkt; GPS-III Plus	31.99
010-10117-01 Carying case	12.99
010-10121-00 MCX-BNC adapt cbl; 12CX/XL	25.99
010-10141-00 PC interface cable	38.99
010-10165-00 PC cable w/cig adapter	45.99
010-10215-00 MapSource US CD;GPS-III Plus	99.99
GPS-72 Handheld track-plotter GPS	159.99
010-10082-00 Power/data cable	27.99
010-10085-00 Cig lighter adapter cable ...	23.99
010-10117-01 Carying case	12.99
010-10141-00 PC interface cable	38.99
StreetPilot 12 ch dash mt mapping GPS	469.99
GA-26C Low prof remote ant w/cable/BNC	89.99
010-10082-00 Power/data cable	27.99
010-10085-00 Cig lighter adapter	23.99
010-10141-00 PC interface cable	38.99
010-10165-00 PC cable w/cig adapter	45.99
010-10199-03 Carrying case .....D	12.99
010-10215-00 MapSource US road&rec CD	99.99
010-10215-03 MapSource MetroGuide CD .	99.99
010-10227-00 Blank 8MB memory cartridge	58.99
010-10232-00 Carrying case .....D	14.99
StreetPilot III Deluxe GPS	999.99
GA-26C Low prof remote ant w/cable/BNC	89.99
010-10141-00 PC interface cable	38.99
010-10165-00 PC cable w/cig adapter	45.99
010-10227-00 Blank 8MB memory cartridge	58.99
eMAP Deluxe GPS/maping/8MB datacard/PC cbl	209.99
GA-27C Low profile remote ant/cable/MCX	89.99
010-10121-00 MCX to BNC adapter cable	25.99
010-10215-00 MapSource US road&rec CD	99.99
010-10215-03 MapSource MetroGuide CD .	99.99
eTREX 12 ch mini GPS receiver	119.99

Garmin - continued

	AES Price
eTREX Summit* 12ch mini GPS/compass/barometric	249.99
***$50 consumer rebate from Garmin eTREX Summit thru 12/31/02**	
010-10203-00 Cig lighter cbl; eMAP & eTREX	39.99
010-10205-00 Data cable; eMAP & eTREX	22.99
010-10206-00 PC interface cbl; eMAP & eTREX	38.99
NavTalk Analog cellular phone/GPS combo Δ	299.99
010-10215-00 MapSource US road&rec CD	99.99
GPS-V Turn-by-turn navigation GPS/software D	449.99
GPS-V Deluxe Turn-by-turn navigation GPS/soft	499.99
GA-26C Low prof remote ant w/cable/BNC	89.99
010-10082-00 Power/data cable	27.99
010-10111-00 Mounting bracket	31.99
010-10117-01 Carying case	12.99
010-10165-00 PC cable w/cig adapter	45.99
010-10215-03 MapSource MetroGuide CD .	99.99
Rino-120 GPS/FRS/GMRS w/8mb mem/basemap	249.99

GEOCHRON (GEO)

World Watch Day/night Windows software ..	$ 49.99
Std Blk/Gold* Std black/gold trim world clock/map	999.99
Std Oak/Gold* Std oak/gold trim world clock/map	999.99

***These items are drop-shipped (shipped direct to you from the Geochron factory). On factory drop-shipments we prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your drop-shipped merchandise. Shipment is FOB Redwood City, California via UPS, COD for freight charges only. Freight charges will be collected upon delivery by the carrier. Please allow sufficient time for delivery on this special order item. Other Geochron models available on special order.**

GLEN MARTIN (GME)

TOWERS

M-1330A 30' alum tower package w/Hazer .T	1614.99
M-1340A 40' alum tower package w/Hazer .T	1831.99
M-1350A 50' alum tower package w/Hazer .T	2069.99
M-1840A 40' alum tower package w/Hazer .T	2149.99
M-1850A 50' alum tower package w/Hazer T	2409.99
M-1860A 60' alum twr pack w/Voyager Hazer T	3355.99
M-1870A 70' alum twr pack w/Voyager Hazer T	3659.99
ML-1800 Messenger line kit for GME towers ..	72.99
KB-1000 57" side arm; M-13 series	81.99
KB-1300 57" side arm; M-18 series	84.99
M-22 10' galv steel M-22 tower section	431.99
CHB-22 Footing assembly for M-22	260.99
B-22 Leveling base for M-22	379.99

ROOF-TOP TOWERS

RT-424 4.5' roof-top tower, anodized aluminum	$163.99
RT-832 8' roof-top tower, anodized aluminum	242.99
RT-936 9' roof-top tower, anodized aluminum	396.99
RT-1832 17.5' roof-top tower, anodized aluminum	531.99
RT-2632 26' roof-top tower, anodized aluminum	879.99
MC-10 Mast clamp; aluminum, 2 required	24.99
TB-25 Premium thrust bearing	89.99
LB-3755 Lag bolts, set of 8 3/8 x 5"	9.99
EL-3744 Concrete L-bolts, set of 8	14.99
RA-6024 24" side arm for roof towers	41.99
RA-6048 48" side arm for roof towers	54.99

HAZERS FOR ROHN TOWERS

H-2 Heavy duty aluminum Hazer system	$360.99
H-3 Standard duty aluminum Hazer system .	273.99
H-4 Heavy duty galv steel Hazer system	348.99
BW-8001 Brake winch for H-2/3/4	80.99
HR-2040 Roller bearing set for Hazers	64.99
HR-6010 T²X plates for H-2/3/4/5	26.99
HS-1301 Side arm for Hazers	64.99
ML-2500 Messenger line kit for Rohn towers	76.99
VH8-60 Voyager Hazer for 60' Rohn 45G	1409.99
VH8-70 Voyager Hazer for 70' Rohn 45G	1544.99
VH9-50 Voyager Hazer for 50' Rohn 55G	1329.99
VH9-60 Voyager Hazer for 60' Rohn 55G	1449.99

Glen Martin - continued

	AES Price
VH9-70 Voyager Hazer for 70' Rohn 55G	1564.99

LIGHTNING PROTECTION

LR-8400 Premium lightning rod kit	$ 99.99
GR-4400 Ground rod wire clamp	6.99
GR-5080 8' x 5/8" ground rod	20.99
TL-0470 Terminal lug	2.99
LR-8418 Lightning rod point, 18" long	38.99
LR-8452 Clamp for holding rod to 2" mast	25.99
LR-8451 Clamp for holding rod to 1 5/16" mast	24.99
CW-2540 25' #4 bare copper ground wire ..	20.99
CW-5040 50' #4 bare copper ground wire ..	41.99
CW-7540 75' #4 bare copper ground wire ..	59.99
CW-1040 100' #4 bare copper ground wire ..	66.99
CW-1240 125' #4 bare copper ground wire ..	98.99
CW-1540 150' #4 bare copper ground wire ..	118.99

GUYING

HP-3000 Kevlar guy cable, 3000# break strength per ft	$ .99
HP-4500 Kevlar guy cable, 4500# break strength per ft	1.49
HP-7500 Kevlar guy cable, 7500# break strength per ft	1.99
WR-125 1/8" galv 7 x 7 guy cable .....per ft.	.49
WR-380 3/8" galv 7 x 7 guy cable .....per ft.	.69
WRS-156 5/32" stainless 7 x 19 guy cable per ft.	.79
WRS-187 3/16" stainless 7 x 19 guy cable per ft.	.89
WRS-250 1/4" stainless 7 x 19 guy cable per ft.	.99
WR-1862 3/16" U-bolt clip (also for Kevlar 3000/4500)	1.69
WR-2565 1/4" U-bolt clip (also for Kevlar 7500)	1.69
WR-3164 5/16" U-bolt clip	1.99
PT-2500 1/4" heavy duty thimble (for all Kevlar)	2.69
PT-3100 5/16" heavy duty thimble	2.99
PT-3700 3/8" heavy duty thimble	3.39
H-165 1/4" end cap (for Kevlar 3000/4500) .	.79
H-164 5/16" end cap (for Kevlar 7500)	.89
H-142 3/8" end cap	.99
RG-4010 1/4" link connecting earthscrew to turnbuckle	8.99
ES-40 4" dia x 30" earth screw	22.99
EG-40 4" dia x 30" galvanized earth screw ..	33.99
ES-60 6" dia x 48" earth screw	39.99
EG-60 6" dia x 48" galvanized earth screw ..	55.99
ES-80 8" dia x 66" earth screw	68.99
TB-3806 3/8" x 6" galvanized turnbuckle	18.99
TB-5009 1/2" x 9" galvanized turnbuckle	24.99
TB-6212 5/8" x 12" galvanized turnbuckle	41.99

MASTS

M-1049 9' x 2" OD heavy duty galv steel mast	$ 79.99
M-1040 10' x 2" OD heavy duty galv steel mast T	84.99
MA-1040 10' x 1.92" OD medium duty alum mast T	94.99
MA-1049 9' x 1.92" OD medium duty alum mast	89.99
MA-2069 9' x 2.375" OD heavy duty alum mast	99.99
MA-1050 5' x 1.92" OD medium duty alum mast	61.99
MA-5050 5' x 1.31" OD light duty alum mast	41.99
MP-1409 9' x 2" OD .250 wall xtra HD fg mast	129.99
MP-1809 9' x 2" OD .125 wall med dty fg mast	76.99

SIDE ARMS

HS-2500 36" universal side arm mount	$ 65.99
HS-6000 52" universal side arm mount	78.99

WINCHES

B-800 800 lb capacity w/4.5:1 gear ratio	$ 72.99
W-1100 1100 lb capacity w/3.9:1 gear ratio	42.99
B-2000 2000 lb capacity w/17:1 gear ratio ..	126.99
WA-1200 4000 lb electric winch, 115 vac	489.99
WD-1200 4000 lb electric winch, 12 vdc	448.99
W-6371 Pendant for 12 vdc	178.99
W-6372 Pendant for 115 vac	102.99

TOWER CLIMBING EQUIPMENT

FP-5600 2 d-ring full body climbing harness (S-M)	$ 81.99
FP-5601 2 d-ring full body climbing harness (L-XL)	81.99
FP-5602 4 d-ring full body climbing harness (S-M)	99.99
FP-5603 4 d-ring full body climbing harness (L-XL)	99.99
FP-6600 6 d-ring full body climbing harness (XS)	272.99
FP-6601 6 d-ring full body climbing harness (S)	260.99

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

Glen Martin - continued

		AES Price
FP-6602	6 d-ring full body climbing harness (M)	260.99
FP-6603	6 d-ring full body climbing harness (L)	260.99
FP-6604	6 d-ring full body climbing harness (XL)	272.99
FP-2606	1"x6' web lanyard/dbl locking snaphooks	45.99
FP-2608	1"x8' web lanyard/dbl locking snaphooks	48.99
FP-2610	1"x10' web lanyard/dbl locking snaphooks	50.99
FP-2902	1"x2' web lanyard, ¾" throat, snaphooks	44.99
FP-2903	1"x3' web lanyard, ¾" throat, snaphooks	45.99
FP-2904	1"x4' web lanyard, ¾" throat, snaphooks	45.99
FP-2905	1"x5' web lanyard, ¾" throat, snaphooks	46.99
FP-2906	1"x6' web lanyard, ¾" throat, snaphooks	47.99
FP-2913	1"x3' web lanyard, ¾"&1⅛" throat openings	72.99
FP-2914	1"x4' web lanyard, ¾"&1⅛" throat openings	72.99
FP-2915	1"x5' web lanyard, ¾"&1⅛" throat openings	73.99
FP-2916	1"x6' web lanyard, ¾"&1⅛" throat openings	74.99
FP-2923	1"x3' web lanyard, ¾"&2½" throat openings	90.99
FP-2924	1"x4' web lanyard, ¾"&2½" throat openings	91.99
FP-2925	1"x5' web lanyard, ¾"&2½" throat openings	92.99
FP-2926	1"x6' web lanyard, ¾"&2½" throat openings	93.99

All GLEN MARTIN orders are plus freight at Glen Martin's rates direct to you from the factory. There is also a $75 residential address delivery charge on M-13 & M-18 series towers. We prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your order. Please allow sufficient delivery time. Most truck lines will not unload towers, so please be sure to have enough manpower and/or equipment on hand.

L.L. GRACE (GRA)

KCT	Kansas City Tracker satellite package .D	$229.99
KCT/T	Kansas City Tracker package/KC Tuner D	329.99

GROTHE (GRO)

VS-2	Emergency vehicle siren	$ 89.99
VS-2LS/A	Window mt siren/amber halogen	299.99
VS-2LS/B	Window mt siren/blue halogen	299.99
VS-2LS/R	Window mt siren/red halogen	299.99
VS-3	Volunteer vehicle PA/horn w/spkr	129.99
VS-4	P/A emergency vehicle siren w/spkr	139.99

GRUNDIG (GRU)

eTraveller VII	Mini AM/FM/SW Rcvr	$ 99.99
G-2000A	Porsche design AM/FM/SW receiver	99.99
MiniWorld 100PE	Mini AM/FM/SW receiver	29.99
Satellit 800	AM/FM/SW/LW/aircraft receiver	499.99
Yacht Boy 300PE	Port AM/FM/SW/LW Rcvr	79.99
Yacht Boy 400PE	Port AM/FM/SW/LW Rcvr/ps	149.99

HAL (HAL)

DSP-4100/2K	HF DSP modem ....special order	1495.99
DXP-38	External DSP HF radio modem	395.99
RTTY-1	RTTY tuning indicator	99.99

HARGER (HRG)

GBIS18114AE	⅛" copper entrance ground bar kit	$ 27.99
GBIS18148AE	⅛" copper station ground bar kit	64.99
GEL3AE	Package of 5 HD grounding lugs	15.99
GP1868.78AE	⅛" copper single pt gnd panel kit	54.99
GBX976AE	NEMA-4x weatherproof enclosure	89.99

HEIL (HEI)

BM-5-4	Boom mic/single headset (HC-4)	$ 69.99
BM-5-5	Boom mic/single headset (HC-5)	69.99
BM-5-IC	Boom mic/single headset/adapter; Icom	86.99
BM-10-4	Boom mic/headset (HC-4)	89.99
BM-10-5	Boom mic/headset (HC-5)	89.99
BM-10-I	Boom mic/headset; Icom .....D	59.99
BM-10-IC	Boom mic/headset/adapter; Icom	106.99
PRO-5-4	Boom mic/single headset (HC-4) .D	79.99
PRO-5-IC	Bm mic/single headset/adapter; Icom D	99.99
PRO-SET-4	Deluxe boom mic/headset (HC-4)	130.99
PRO-SET-5	Deluxe boom mic/headset (HC-5)	130.99

Heil - continued

		AES Price
PRO-SET-IC	Dlx boom mic/headset/adapter; Icom	147.99
PRO-SET-PLUS	Dlx boom mic/headset (HC4&5)	189.99
PRO-SET-PLUS-IC	Dlx bm mic/hdset (HC4&5); Ico	206.99
AD-1-I	Pro-Set 8-pin adapter cord for Icom	17.99
AD-1-K	Pro-Set 8-pin adapt cord; Kenwood	17.99
AD-1-T	Pro-Set 4-pin adapt cord; Ten-Tec	17.99
AD-1-Y	Pro-Set 8-pin adapter cord; Yaesu	17.99
AD-1-I-M	Pro-Set modular adapt cord; Ico	17.99
AD-1-K-M	Pro-Set modular adapt cord; Ken	17.99
AD-1-Y-M	Pro-Set modular adapt cord; Yae	17.99
Traveler 8P IC	Bm mic/single headset; 8-pin Icom	89.99
Traveler 706	Boom mic/single headset; IC-706	89.99
Traveler 817	Boom mic/single headset; FT-817	89.99
FS-1	Foot switch	30.99
FS-1M	Foot switch w/modular plug; IC-706	30.99
FS-2	Dual switch foot switch	38.99
HS-1	Hand switch	25.99
HC-4	DX'ers 'dream machine' mic element	30.99
HC-5	Key microphone element	30.99
AD-100	Mic/boomset adapt; FT-100/AD-1Y/CC-1Y	25.99
ADM-Y817	Mic/boomset adapt; FT817/AD1Y/CC1Y	25.99
HMP-M	In-line mic pre/mod plug; 706/MkII .D	29.99
GM-4	Goldline dual element studio mic w/HC-4	140.99
GM-5	Goldline dual element studio mic w/HC-5	140.99
GM-V	Goldline vintage studio mic/matching xfmr	155.99
HCL-5	Classic 1930's desk mic/studio el & HC-5	229.99
HM-10-4	Microphone with HC-4 element	65.99
HM-10-5	Microphone with HC-5 element	65.99
HM-10-Dual	Mic w/HC-4 & HC-5 elements	115.99
HM-I	Studio condensor microphone; Icom ..D	95.99
ICM	Pre-PRO Icom electret mic w/cable	89.99
ADM-706	Adapter; HM-I - Icom 706/modular plug	25.99
CC-1-C	3/16" plug cable for Collins/Drake	33.99
CC-1-D	4-pin cable for Drake	30.99
CC-1-I	8-pin cable for Icom	30.99
CC-1-I-M	Modular cable for Icom	30.99
CC-1-K	8-pin cable for Kenwood	30.99
CC-1-K-M	Modular cable for Kenwood	30.99
CC-1-T	Cable for Ten-Tec	30.99
CC-1-Y	8-pin cable for Yaesu	30.99
CC-1-Y-M	Modular cable for Yaesu	30.99
LX-1	Balanced 41" Luxo boom	95.99
MA-1	Adjustable microphone boom	45.99
SB-1	Small adjustable mic boom w/C clamp	33.99
TB-1	Table base microphone stand	25.99
HMM-IC	Condensor hand mic/8-pin plug; Icom	58.99
HMM-K	Dual el hand mic/HC-4/8-pin plug; Ken	78.99
HMM-Y	Dual el hand mic/HC-4/8-pin plug; Yae	78.99
Boom Clip	for BM-series	5.99
Ear Pads	for BM-series.....pair	5.99
Ear Pads	for PRO-series.....pair	6.99
Ham Radio Handbook		12.95
HD-AT	6db headph attenuator, ¼"m-¼"f adapt	5.99
SM-1	Shock mount for any microphone boom	50.99
XT-1	Audio matching xfmr; lo-Z mic/tube Xcvr	15.99

HUSTLER (HUS)

RM-80	80m CW 400w PEP resonator	$ 26.99
RM-75	75m phone 400w PEP resonator	26.99
RM-40	40m 400w PEP resonator	24.99
RM-30	30m 400w PEP resonator	24.99
RM-20	20m 400w PEP resonator	21.99
RM-17	17m 400w PEP resonator	21.99
RM-15	15m 400w PEP resonator	15.99
RM-12	12m 400w PEP resonator	15.99
RM-11	CB 400w PEP resonator	15.99
RM-10	10m 400w PEP resonator	15.99
RM-80S	80m CW 2kw PEP resonator	49.99
RM-75S	75m phone 2kw PEP resonator	49.99
RM-40S	40m 2kw PEP resonator	35.99
RM-20S	20m 2kw PEP resonator	28.99

Hustler - continued

		AES Price
RM-15S	15m 2kw PEP resonator	24.99
RM-11S	CB 2kw PEP resonator	23.99
RM-10S	10m 2kw PEP resonator	23.99
MO-1	54" mast for fender or deck mount	31.99
MO-2	54" mast for bumper mount	31.99
MO-3	54" no break-over mast	23.99
MO-4	22" mast for special applications	19.99
VP-1	Tri-band adapter	5.99
RSS-2	Resonator spring	9.99
QD-2	Stainless quick disconnect	19.99
L-14-144	12' RG-58, PL-259 to lugs	9.99
L-14-240	20' RG-58, PL-259 to lugs	12.99

STAINLESS 2" MOBILE BALL MOUNTS

SSM-1	Ball & spring, cadmium hardware	$ 46.99
SSM-2	Ball, cadmium hardware	26.99
SSM-3	Stainless steel spring	24.99

1-1/2" MOBILE BALL MOUNTS

C-32	Chrome plated ball	$ 11.99
C-30	Chrome plated spring	11.99
C-29	Stainless steel spring	17.99
BM-1	Single strap bumper mt w/C-32	21.99

3/8-24 THREAD MOBILE MOUNTS

HLM	Trunk lip mount w/swivel	$ 22.99
HOT	Hustloff trunk lip mt w/swivel	23.99
MBM	Super magnet mount w/16' coax	19.99
RVM	Recreational vehicle mount	20.99
TLM	Trunk lip mount	21.99

HF ANTENNAS

4-BTV	40/20/15/10m 21' trap vertical	$119.99
5-BTV	80/40/20/15/10m 25' trap vertical	149.99
30-MTK	30m trap kit for 4-BTV/5-BTV	41.99
6-BTV	80/40/30/20/15/10m 24' trap vert	179.99

VHF/UHF BASE STATION ANTENNAS

G3-144	2m 3db 7.5' vertical antenna	$ 63.99
G6-144B	2m 6db 10' vertical antenna	114.99
G6-270R	2m/440 6db 7.6' base station ant	159.99
G7-144	2m 7db 15' vertical antenna	159.99
G7-220	220 MHz 7db 10' vertical antenna	149.99
G6-440	440 MHz 6db 7' vertical antenna	139.99

VHF/UHF MOBILE ANTENNAS

BBG-144	2m 3.4db NMO coil/whip only	$ 39.99
BBGT-144	2m 3.4db NMO trunk lip mt ant	49.99
BBG-440-5	440 5db NMO coil/whip only	39.99
BBGT-440-5	440 5db NMO trunk lip mt ant	49.99
BBL-144A	2m ¾" hole mt antenna, 3.4db	39.99
BBLT-144A	2m trunk lip mt ant, 3.4db	47.99
CG-144	2m ⅜-24 ant, 7' high, 5.2db	31.99
CGT-144	2m trunk mt ant, 7' high, 5.2db	51.99
CG-220	220 MHz ⅜-24 ant, 5.2db	29.99
CGT-220	220 MHz 5.2db tnk mt ant	49.99
LMB-144	2m 3.4db black NMO coil/whip only	22.99
LMB-440-5	440 5db black NMO coil/whip only	19.99
LMC-144	2m 3.4db NMO coil/whip only	19.99
LMC-270	2m/440 2.4/4db NMO coil/whip only	31.99
LMC-440-5	440 5db NMO coil/whip only	19.99
LMG-144	2m 3.4db NMO pushpin coil/whip only	25.99
LMG-440-5	440 5db NMO pushpin coil/whip only	19.99
MKR-2	Radial kit for CG/RX/SF-antennas	20.99
MX-2	2m 3db black & chrome NMO mag mt ant	34.99
MX-2B	2m 3db all black NMO mag mt ant	39.99
MX-220	220 3db blk & chrome NMO mag mt ant	34.99
MX-270	2m/440 2.4/4db chrome NMO mag mt ant	59.99
MX-440	440 5db blk & chrome NMO mag mt ant	36.99
MX-440B	440 5db all black NMO mag mt ant	36.99
RX-2	2m 3.4db magnetic mount ant	24.99
RX-220	220 3.4db magnetic mt antenna	24.99
RX-440	440 5db magnetic mt antenna	24.99
SF-2	2m ⅜-24 ant, 4' high, 3.4 db	14.99
SF-220	220 MHz ⅜-24 antenna, 3 db	14.99
THF	140-500 MHz ¼ wave trunk mount ant	23.99

Hustler - continued

	AES Price
UGM 140-500 MHz ¼ wave BNC mag mt ant	21.99
UHT-1 140-500 MHz ¼ wave roof mt ant	14.99

CB & MONITOR ANTENNAS

1C-11 White trunk mount CB antenna	$ 13.99
1C-11B Black trunk mt CB antenna	13.99
1C-100 White magnetic mount CB antenna	21.99
1C-100B Black magnetic mt CB antenna	21.99
DTG 25" fg double-talk gutter mt CB ant	39.99
FG-27S 48" CB whip	11.99
HQ-27 Power Packer ⅜-24 CB whip	17.99
HQ-27M Power Packer trunk mt CB antenna	36.99
HQD Dual fg mirror mount CB antenna	49.99
HQT Single fg mirror mount CB antenna	27.99
HTM-1 Twin Husky fg ant w/mirror mts .....D	24.99
RQM Magnetic mount CB antenna	19.99
RTG-27L 25" CB antenna w/rain gutter mt	26.99
RTM 25" magnetic mount CB antenna	16.99
RTS-27L 25" CB antenna w/roof mount	26.99
SCB/BLK 46" black CB whip	34.99
SCB/BLU 46" blue CB whip	34.99
SCB/RED 46" red CB whip	34.99
SCB/WHT 46" white CB whip	34.99
SCB-S/BLK 35" black CB whip	34.99
SCB-S/BLU 35" blue CB whip	34.99
SCB-S/RED 35" red CB whip	34.99
SCB-S/WHT 35" white CB whip	34.99
DCL Discone monitor ant/50' coax/Motorola plug Δ	19.99
DCL-B Discone monitor ant/50' coax/BNC plug	34.99
DCX Discone monitor ant; 40-700 MHz	23.99
MOR Roof/deck mt 3-band Motorola plug mon ant Δ	9.99
MOR-B Roof/deck mt tri-band BNC monitor ant	18.99
MOT Trunk lip mt tri-band Motorola plug mon ant Δ	12.99
MOT-B Trunk lip mt tri-band BNC monitor ant	19.99
MRM-B Magnet mt tri-band BNC monitor ant	19.99

HY-GAIN (HYG)

190S RRK-88 Roof radial kit .....Δ	$ 19.99
191S 160MK-88 160m kit for 188S .....Δ	49.99

HF BEAM ANTENNAS

LJ-103BA 3el 7.9db 8' boom 10m beam	$159.99
LJ-105CA 5el 10.8db 24' boom 10m beam	289.99
LJ-153BA 3el 7.9db 12' boom 15m beam	209.99
LJ-204BA 4el 8.2db 26' boom 20 or 17m beam	539.99
TH-3JRS 3el 600w PEP 20/15/10m beam	359.99
TH-3MK4 3el 8db 14' boom 20/15/10m beam	469.99
TH-5MK2 5el 8.3db 19' boom 20/15/10m beam	759.99
TH-7DX 7el 8.77db 24' boom 20/15/10m beam	869.99
BN-86 3-30MHz balun for HF beam	79.99

MULTI-BAND HF VERTICAL ANTENNAS

AV-14AVQ 40/20/15/10m 18' vertical ant	$169.99
AV-18HT HyTower 80/40/20/15/10m 53' vert T*	799.99
AV-620 20/17/15/12/10/6m 22.5' vertical	269.99
AV-640 40/30/20/17/15/12/10/6m 25.5' vert	359.99
DX-88 160/40/30/20/17/15/12/10m 25' vert	369.99

VHF/UHF ANTENNAS

DB-218SAT VHF/UHF Oscar Link system	$559.99
VB-25FM 5el 11.2db 75" boom 2m beam	59.99
VB-64DX 4el 10.4db 12' boom 6m beam	144.99

***These items are drop-shipped (shipped direct to you from the Hy-Gain factory). On these factory drop-shipments we prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your drop-shipped merchandise. Shipment is FOB Starkville, Mississippi via truck, COD for freight charges only. Freight charges will be collected upon delivery by the carrier. Please allow sufficient time for delivery on these special order items.**

ANTENNA ROTORS

AR-40 3 sq ft antenna rotor/5-wire	$269.99
CD-45-II 8.5 sq ft antenna rotor/8-wire	369.99

Hy-Gain - continued

	AES Price
HAM-IV 15 sq ft antenna rotor/8-wire	529.99
HAM-V Digital 15 sq ft antenna rotor/8-wire	899.99
HDR-300A Hvy duty dig 25 sq ft rotor/8-wire	1229.99
T-2X Tailtwister 20 sq ft antenna rotor/8-wire	619.99
T-2XD Tailtwister dig 20 sq ft ant rotor/8-wire	979.99

OPTIONAL ACCESSORIES FOR ROTORS

DCU-1 Dig rotor control; CD-45/HAM-IV/T-2X	$619.99
MSHD Lwr mast support; HAM-IV/V/T-2X/XD	99.99
MSLD Lower mast support; CD-45-II/AR-40	39.99
TSP-1 Tower spacer plate	34.99

See BELDEN for rotor cable

ICOM (ICO)

IC-775DSP Xcvr/ps/keyer/tuner/IF-DSP .....D	3299.99
CR-282 High stability crystal unit	149.99
CT-17 CI-V level converter	139.99
FL-53A 250 Hz 455 KHz IF CW filter	189.99
FL-101 250 Hz 9 MHz IF CW filter	119.99
FL-102 6 KHz 9 MHz IF AM filter	94.99
FL-222 1.9 KHz 455 KHz IF SSB filter	199.99
FL-223 1.9 KHz 9 MHz IF SSB filter	99.99
FL-257 3.3 KHz 455 KHz IF SSB filter	189.99
HM-36 Scanning hand mic	74.99
MB-19 Rack mounting handles	74.99
SM-6 Desk microphone	119.99
SM-20 Deluxe desk microphone	219.99
SP-20 Speaker w/audio filter	249.99
SP-21 External speaker	119.99
UT-66 Voice synthesizer .....Δ	83.99
IC-756PRO II Xcvr/Rcvr/6m/IF-DSP/tuner/keyer	2969.99
PS-125 ps FREE with IC-756PRO II! thru 12/31/02	
PS-125 25A switching power supply	299.99
AH-4 80-6m 120w auto wire ant tuner ....†	269.99
AH-2B Whip w/mt; 40-6m use tuner	299.99
AH-2B extra **whip only**	119.99
CT-17 CI-V level converter	139.99
HM-36 Scanning hand mic	74.99
OPC-025D Extra DC cable	29.99
SM-6 Desk microphone	119.99
SM-20 Deluxe desk microphone	219.99
SP-20 Speaker w/audio filter	249.99
SP-21 External speaker	119.99
UT-102 Voice synthesizer	74.99
RS-746 Win remote control software; IC-746 .D	79.99
IC-746PRO Xcvr/Rcv/6m/2m/IF-DSP/tuner/mic	1899.99
PS-125 ps FREE with IC-746PRO! Limited Time!	
PS-125 25A switching power supply	299.99
AH-4 80-6m 120w auto wire ant tuner ....†	269.99
AH-2B Whip w/mt; 40-6m use tuner	299.99
AH-2B extra **whip only**	119.99
CR-338 High stability crystal unit	81.99
CT-17 CI-V level converter	139.99
OPC-025D Extra DC cable	29.99
SM-6 Desk microphone	119.99
SM-20 Deluxe desk microphone	219.99
SP-20 Speaker w/audio filter	249.99
SP-21 External speaker	119.99
UT-102 Voice synthesizer	74.99
UT-30 Tone encoder; IC-707 .....Δ	49.99
IC-718 HF Xcvr/SW Rcvr/mic	599.99
PS-125 25A switching power supply	299.99
AH-4 80-6m 120w auto wire ant tuner ....†	269.99
AH-2B Whip w/mt; 40-6m use tuner	299.99
AH-2B extra **whip only**	119.99
AT-180 Auto coax antenna tuner; HF+6m †	369.99
OPC-598 23' extension cable for AT-180	69.99
CR-338 High stability crystal unit	81.99
CT-17 CI-V level converter	139.99
FL-52A 500 Hz 455 KHz IF CW filter	189.99
FL-53A 250 Hz 455 KHz IF CW filter	189.99
FL-96 2.8 KHz 455 KHz IF SSB filter .....Δ	149.99

Icom - continued

	AES Price
FL-222 1.9 KHz 455 KHz IF SSB filter	199.99
FL-257 3.3 KHz 455 KHz IF SSB filter	189.99
Suggest dealer installation of filters in IC-718	
MB-5 Mobile mount	59.99
MB-23 Side mount carrying handle	15.99
OPC-025D Extra DC cable	29.99
SM-6 Desk microphone	119.99
SM-20 Deluxe desk microphone	219.99
SP-7 Small external speaker	94.99
SP-20 Speaker w/audio filter	249.99
SP-21 External speaker	119.99
UT-102 Voice synthesizer	74.99
UT-106 Plug-in DSP	149.99
IC-706 Mk II-G Mini Xcvr/Rcvr/6m/2m/440/DSP .†	839.99
(BET) **706 Tune Control** for IC-706-series	32.99
PS-125 25A switching power supply	299.99
AH-4 80-6m 120w auto wire ant tuner ....†	269.99
AH-2B Whip w/mt; 40-6m use tuner	299.99
AH-2B extra **whip only**	119.99
AT-180 Auto coax antenna tuner; HF+6m †	369.99
OPC-598 23' extension cable for AT-180	69.99
CR-282 High stability crystal unit; Mk II G	149.99
Suggest dealer install; CR-282, IC-706 Mk II-G	
CT-17 CI-V level converter	139.99
FL-100 500 Hz 9 MHz IF CW filter	119.99
FL-101 250 Hz 9 MHz IF CW filter	119.99
FL-103 2.8 KHz 9 MHz IF SSB filter	109.99
FL-223 1.9 KHz 9 MHz IF SSB filter	99.99
FL-232 350 Hz 9 MHz IF CW/RTTY filter	99.99
HM-118TN TTP microphone	59.99
MB-62 Mounting bracket for main unit	25.99
MB-63 Mounting bracket for control panel	18.99
MB-65 Mounting base platform	35.99
MB-72 Carrying handle; Mk II-G only	14.99
OPC-025D Extra DC cable	29.99
OPC-581 11.5' separation cable	60.99
OPC-587 16' separation cable	79.99
OPC-599 7+8-pin to 13-pin adapter	60.99
OPC-742 13-pin cable	59.99
RMK-706 Package; MB-62/MB-63/OPC-581	70.99
SM-6 Desk microphone	119.99
SM-20 Deluxe desk microphone	219.99
OPC-589 8-pin to jack adapt; SM-6/8/20	35.99
SP-7 Small external speaker	94.99
SP-10 Slim-line external speaker	69.99
UT-102 Voice synthesizer	74.99
AH-710 1.9-30 MHz 80' folded dipole	299.99
PW-1 160-15+6m linear amp/ps/tuner	4699.99
OPC-137 Adapter cable; older Icom Xcvr Δ	19.99
UT-86 Tone squelch; IC-706 Mk II only .....Δ	69.99

RECEIVERS

R-2-06 .5M-1.3G AM/FM hand/batts/cgr/cell blkd	$159.99
R-2-07* .5MHz-1.3GHz AM/FM hand Rcvr ..†	179.99
AD-92SMA SMA- BNC adapter	16.99
BC-127A Extra nicad charger	20.99
CS-R2 DOS programming software; R-2	13.99
OPC-474 Cloning cable (R-2 to R-2)	18.99
OPC-478 PC - radio programming cable	45.99
CSW-HHRX Win prog soft/cable; R-2/R-10	50.99
HP-4 Lightweight headphones	29.99
LC-146 Carrying case	38.99
SP-13 Earphone	4.99
R-3-26 .5M-2.45G AM/FM/TV hand Rcvr/cell blkd †	349.99
R-3-27* .5MHz-2.45GHz AM/FM/TV hand Rcvr	489.99
BC-135 Desktop charger w/adapter cup	80.99
BP-206 Extra 3.7v 1650ma lith ion batt	63.99
CP-18A Cig lighter adapter	30.99
CS-R3 Win programming software	24.99
OPC-474 Cloning cable (R-3 to R-3)	18.99
OPC-478 PC - radio programming cable	45.99
HP-4 Lightweight headphones	29.99

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

Icom - continued

	AES Price
LC-151 Carrying case	24.99
SP-13 Earphone	4.99
R-10-05 .5M-1.3G AM/FM/SSB hand/cell blkd	299.99
R-10-15* .5MHz-1.3GHz AM/FM/SB HH Rcvr	299.99
CP-12L Right angle cig cable w/filter	36.99
CS-R10 DOS programming software; R-10	13.99
OPC-474 Cloning cable (R-10 to R-10)	18.99
OPC-478 PC - radio programming cable	45.99
CSW-HHRX Win prog soft/cable; R-10/R-2	50.99
CT-17 CI-V level converter	149.99
HP-4 Lightweight headphones	29.99
LC-140 Carrying case for R-10	38.99
OPC-254L Right angle mini DC pwr cable	14.99
SP-13 Earphone	4.99
CK-70 (EX-299) 12v DC option; R-7000 ....Δ	29.99
PCR-100-12 .01-1300 am/fm PC Rcv/cell blkd D	229.99
PCR-100-08* .01-1300 PC controlled Rcvr ....D	229.99
AH-7000 25-1000 MHz discone ant w/coax	179.99
PCR-1000-02 .5-1300 PC Rcv/cell blkd ....D	299.99
AH-7000 25-1000 MHz discone ant w/coax	179.99
BON CS-40 Bonito soft PCR-1000-02/07	68.99
CP-12 Cig lighter cable w/filter	36.99
SP-7 Small external speaker	94.99
SP-10 Slim-line external speaker	69.99
UT-106 Plug-in DSP unit	149.99
PCR-1000-02 BON PC Rcvr/Bon soft/cell blkd	374.99
PCR-1000-07 BON* PC Rcvr/Bonito soft	374.99
AH-7000 25-1000 MHz discone ant w/coax	179.99
CP-12 Cig lighter cable w/filter	36.99
SP-7 Small external speaker	94.99
SP-10 Slim-line external speaker	69.99
UT-106 Plug-in DSP unit	149.99
R-75 .03-60 MHz shortwave receiver	599.99
CR-282 High stability crystal unit	149.99
CT-17 CI-V level converter	139.99
FL-52A 500 Hz 455 KHz IF CW filter	189.99
FL-53A 250 Hz 455 KHz IF CW filter	189.99
FL-96 2.8 KHz 455 KHz IF SSB filter ....Δ	149.99
FL-100 500 Hz 9 MHz IF CW filter	119.99
FL-101 250 Hz 9 MHz IF CW filter	119.99
FL-103 2.8 KHz 9 MHz IF SSB filter	109.99
FL-222 1.9 KHz 455 KHz IF SSB filter	199.99
FL-223 1.9 KHz 9 MHz IF SSB filter	99.99
FL-232 350 Hz 9 MHz IF CW/RTTY filter	99.99
FL-257 3.3 KHz 455 KHz IF SSB filter	189.99
MB-5 Mobile mount	59.99
MB-23 Side mount carrying handle	15.99
OPC-869 DC cable	13.99
RS-R75 PC control software w/RS-232 cable	80.99
SP-21 External speaker	119.99
UT-102 Voice synthesizer	74.99
UT-106 Plug-in DSP unit	149.99
R-8500-02 .1M - 2G receiver/cell blocked	1499.99
R-8500-04* .1MHz - 2GHz receiver	1499.99
AH-7000 25-1000 MHz discone ant w/coax	179.99
CR-293 High stability xtal unit	329.99
FL-52A 500 Hz CW filter	189.99
MB-12 Mobile mount	59.99
MB-23 Side mount carrying handle	15.99
RS-R8500 PC control soft w/RS-232 cable	80.99
SP-7 Small external speaker	94.99
SP-21 External speaker	119.99
UT-102 Voice synthesizer	74.99

*United States & state government agencies or a political subdivision thereof and communications utility companies and their legal agents **ONLY** may purchase unblocked models of R-2/R-3/R-10/PCR-100/PCR-1000/R-8500 for official government or communications utility company use only. Mail or FAX purchase order to AES. Exports: inquire.

Icom - continued

	AES Price
2m TRANSCEIVERS	
UT-101 DTMF unit for IC-2000H ....Δ	$ 28.99
IC-2100H 50w 2m FM Xcvr/HM-98S TTP mic D	149.99
IC-2100H-25N 50w 2m FM Xcvr/NEW TTP mic	179.99
CS-2100 DOS cloning software	13.99
OPC-478 PC to radio cloning cable	45.99
CSW-2100 Win prog soft/cable; IC-2100H	50.99
HM-90A Wireless microphone ....Δ	119.99
BC-96 Wireless microphone holder ....Δ	39.99
CP-13L Cig cable w/filter for BC-96 Δ	39.99
EX-1759 Infrared receiver ....Δ	99.99
HM-98S Extra TTP mic; original IC-2100H Δ	90.99
MB-28H Extra mobile bracket	26.99
OPC-346 Extra 9.8' DC cable	28.99
OPC-347 23' DC cable	46.99
OPC-440 Mic extension cable	85.99
OPC-441 Speaker extension cable	33.99
OPC-474 Radio to radio cloning cable	18.99
OPC-589 8-pin to jack adapter	35.99
OPC-647 8.2' mic extension cable	54.99
SP-10 Slim-line external speaker	69.99
IC-V8000 75w 2m FM Xcvr w/WX alert/scan	199.99
CS-V8000 Windows cloning software	35.99
OPC-478 PC to radio cloning cable	45.99
OPC-347 23' DC cable	46.99
OPC-440 Mic extension cable	85.99
OPC-441 Speaker extension cable	33.99
OPC-474 Radio to radio cloning cable	18.99
OPC-589 8-pin to jack adapter	35.99
OPC-647 8.2' mic extension cable	54.99
OPC-1132 9.8' DC cable for IC-V8000	28.99
SP-10 Slim-line external speaker	69.99
UT-108 DTMF decoder unit	35.99
V8000-MMB Extra mobile bracket	26.99
IC-207H 50w 2m/35w 440 FM Xcvr/TTP	299.99
CS-207 DOS prog software; IC-207H	13.99
CSW-207/2710 Win cloning soft; 207/2710	30.99
OPC-646 Prog cbl; CS-207/CSW-207/2710	89.99
HM-90A Wireless microphone ....Δ	119.99
BC-96 Wireless microphone holder ....Δ	39.99
CP-13L Cig cable w/filter for BC-96 Δ	39.99
EX-1759 Infrared receiver ....Δ	99.99
MB-28H Extra mobile bracket	26.99
MB-58 Remote controller bracket	39.99
MB-65 Mounting base platform	35.99
OPC-346 Extra 9.8' DC cable	28.99
OPC-347 23' DC cable	46.99
OPC-440 Mic extension cable	85.99
OPC-441 Speaker extension cable	33.99
OPC-589 8-pin to jack adapter	35.99
OPC-600 11.5' extension cable	45.99
OPC-601 23' extension cable	59.99
OPC-647 8.2' mic extension cable	54.99
RMK-3 Package; MB-58/OPC-600/OPC-647	84.99
SP-10 Slim-line external speaker	69.99
MB-26 Mobile mount; IC-281H/2710H ....Δ	6.99
UT-89 Tone scan/decode unit; IC-2350H ....Δ	89.99
UT-104 Tone squelch unit; IC-2710H ....Δ	39.99
IC-2800H 50w 2m/35w 440 FM Xcvr/9600 D	449.99
CS-2800 Windows cloning software	13.99
OPC-478 PC to radio cloning cable	45.99
HM-90A Wireless microphone ....Δ	119.99
BC-96 Wireless microphone holder ....Δ	39.99
CP-13L Cig cable w/filter for BC-96 Δ	39.99
EX-1759 Infrared receiver ....Δ	99.99
MB-28H Extra mobile bracket	26.99
MB-65 Mounting base platform	35.99
MB-73 Controller bracket ....Δ	24.99
OPC-346 Extra 9.8' DC cable	28.99
OPC-347 23' DC cable	46.99
OPC-440 Mic extension cable	85.99

Icom - continued

	AES Price
OPC-589 8-pin to jack adapter	35.99
OPC-647 8.2' mic extension cable	54.99
OPC-872 Controller extension cable	27.99
SP-10 Slim-line external speaker	69.99
UT-84 Tone squelch unit; IC-2700H/821H ..Δ	89.99
IC-910H 100w 2m/75w 430 FM/SSB Xcvr	1199.99
PS-125 25A switching power supply	299.99
AG-25 2m mast mounted GaSFET preamp	189.99
AG-35 430 MHz mast mounted preamp	199.99
AG-1200 1.2 GHz mast mt preamp	159.99
CR-293 High stability xtal unit	329.99
CT-17 CI-V level converter	139.99
FL-132 500 Hz main Rcvr CW filter	119.99
FL-133 500 Hz sub band Rcvr CW filter	119.99
MB-5 Mobile mount	59.99
MB-23 Side mount carrying handle	15.99
SM-20 Deluxe desk microphone	219.99
SP-7 Small external speaker	94.99
SP-10 Slim-line external speaker	69.99
UT-102 Voice synthesizer	74.99
UT-106 Plug-in DSP unit	149.99
UX-910 10w 1.2GHz module	499.99
Accessories for IC-2AT	
BC-25U Extra wall cgr; BP-3 only ....Δ	$ 29.99
BM-112U/BC-16U Wall cgr; 5A/7/8 only ....Δ	26.99
BP-4 Alkaline battery case ....Δ	35.99
BP-5 425ma 10.8v high power battery ....Δ	79.99
BP-8 800ma 8.4v long life battery ....Δ	99.99
CP-1 Cig cgr; BP-3/7/8//DC cord ....Δ	24.99
CP-11 Cig cord w/noise filter ....Δ	39.99
DC-1 DC operation module ....Δ	39.99
IC-T2H Sport 6w 2m FM HT/battery holder	99.99
AD-81 Batt pack adapter for rapid charger	17.99
BC-110A/BC-74 Extra wall charger	40.99
BC-119-01 Desk cgr (adapter required) ....D	84.99
BC-119-N01 Desk charger (adapter required)	84.99
BC-133 Drop-in trickle charger	39.99
BC-122A AC adapter for BC-133	16.99
BP-194 AA alkaline battery case	18.99
BP-195 9.6v 700ma nicad battery	42.99
BP-196 9.6v 1050ma nicad battery	53.99
CP-12L Rt angle cig charge cable w/filter	36.99
CP-17L Right angle cig cable for charger	24.99
CS-T2 DOS prog software for IC-T2	13.99
OPC-474 Cloning cable (T2 to T2)	18.99
OPC-478 PC to radio cloning cable; T2	45.99
CSW-HH4 Windows prog soft w/cable; T2	50.99
HM-46 Slim-line speaker/mic	45.99
HM-54 Hvy duty spkr/mic	83.99
HM-75A Remote control microphone	70.99
HM-128 Earphone+microphone	25.99
HM-131 Spkr/mic/earph jack/revolving clip	38.99
HS-51 Headset w/VOX	96.99
HS-94 Ear-piece style headset; use w/VS-1	24.99
VS-1 VOX-PTT unit for HS-94	42.99
LC-145 Carrying case for IC-T2	38.99
LCF3 Swivel Leather case with swivel	50.99
MB-68 Extra standard belt clip	5.99
MB-74 Spring loaded belt clip	12.99
MB-87 Swivel belt clip	9.99
OPC-254L Right angle mini DC chg cable	14.99
SP-13 Earphone	4.99
IC-V8 5.5w 2m FM HT/batt/cgr/TTP	129.99
BC-144-01/21 Desk charger with adapter	89.99
BP-208 Battery case	18.99
BP-209 7.2v 1100ma 5.5w battery	53.99
BP-210 7.2v 1650ma 5.5w battery	80.99
BP-211 7.4v 1600ma lith ion battery	91.99
BP-222 7.2v 600ma 5.5w battery	35.99
CP-17L Right angle cig cable for charger	24.99
CS-V8 Cloning software for IC-V8	35.99

Icom - continued

	AES Price
OPC-474 Cloning cable (V8 to V8)	18.99
OPC-478 PC to radio cloning cable; V8	45.99
HM-46L Slim-line spkr/mic, rt angle plug	45.99
HM-54 Hvy duty spkr/mic	83.99
HM-75A Remote control microphone	70.99
HS-51 Headset w/VOX	96.99
HS-94 Ear-piece style headset; use w/VS-1L	24.99
VS-1L Right angle VOX-PTT unit for HS-94	42.99
LCF3G Swivel Leather case with swivel	50.99
MB-68 Extra standard belt clip	5.99
MB-74 Spring loaded belt clip	12.99
MB-87 Swivel belt clip	9.99
OPC-515L Right angle DC cord for charger	20.99
SP-13 Earphone	4.99
UT-108 DTMF decoder unit	35.99
IC-T22A 5w 2m FM HT/batt/cgr/TTP	249.99
IC-T7H 6w 2m/440 FM HT/batt/cgr/TTP	199.99
IC-W32A 5w 2m/440 FM HT/batt/cgr/TTP	279.99
AD-51 Batt pack adapt; W32A/rapid cgr	9.99
AD-56 Batt pack adapt; T7H/T22A/rapid cgr	18.99
BC-119-11 Desk charger (adapter required) D	69.99
BC-119-N11 Nicad/NiMH desk cgr (adapt required)	89.99
BP-170 Battery case	35.99
BP-172 4.8v 950ma battery	91.99
BP-173 9.6v 600ma battery	139.99
BP-180 7.2v 600ma battery	83.99
CP-12 Cig lighter cable w/filter	36.99
CP-12L Right angle cig cable w/filter	36.99
CS-T7 DOS prog software for IC-T7H Δ	.99
CSW-32 DOS prog software for IC-W32A	13.99
OPC-474 Cloning cable W32A to W32A)	18.99
OPC-478 PC to radio cloning cbl;T7H/W32A	45.99
CSW-HH4 Windows prog soft/cbl; T7H/W32A	50.99
FA-1443B Extra 2m/440 dual band duck Δ	29.99
HM-46 Slim-line speaker/mic	45.99
HM-46L Slim-line spkr/mic, rt angle plug; T22A	45.99
HM-54 Heavy duty spkr/mic	83.99
HM-75A Remote control microphone	70.99
HM-128 Earphone+microphone	25.99
HM-131 Spkr/mic/earph jack/revolving clip	38.99
HS-10 Boom mic/headset	69.99
HS-10SA VOX unit	69.99
HS-10SB PTT switchbox	69.99
HS-85 Headset w/VOX	89.99
HS-94 Ear-pc headset; use w/VS-1	24.99
VS-1 VOX-PTT unit for HS-94	42.99
LC-125 Vinyl case; T22A w/BP170/171/172 D	2.99
LC-126 Vinyl case; T22A w/BP173 Δ	19.99
LC-128 Vinyl case; IC-W32A	38.99
LC-136 Vinyl case; T7H w/BP170/171/172	38.99
LC-137 Vinyl case; T7H w/BP173/180	38.99
MB-30 Mobile/wall bracket	41.99
NCP-1 Nylon chest pack	39.99
OPC-254 Mini DC power cable	14.99
OPC-254L Right angle mini DC pwr cable	14.99
SP-13 Earphone	4.99
UT-94 Tone squelch unit; IC-T22A Δ	29.99
IC-Q7ABC 350/300mw 2m/440 HT/batts/cgr	129.99
AD-92SMA SMA- BNC adapter	16.99
BC-127A Extra nicad charger	20.99
HM-46 Slim-line speaker/mic	45.99
HM-128 Earphone+microphone	25.99
HS-85 Headset w/VOX	89.99
SP-13 Earphone	4.99
OPC-782 Plug adapt cbl; HM46/HS85/SP13	16.99
LC-146 Carrying case	38.99
IC-T81A 5w 6m/2m/440/1w 1.2 HT/batt/cgr/TTP D	279.99
AD-87 Batt pack adapter for rapid charger	8.99
AD-88 PCB board; orig BC-119-11 Δ	29.99
AD-92SMA SMA- BNC adapter	16.99
BC-119-31 Nicad desk cgr (adapter required) D	99.99
BC-119-N21 Nicad/NiMH desk cgr (adapt required)	99.99

Icom - continued

	AES Price
BP-197 3 AA battery case	24.99
BP-198 4.8v 700ma NiMH battery	59.99
BP-199 6v 700ma NiMH battery	70.99
BP-200L 9.6v 760ma NiMH battery	95.99
CP-12 Cig lighter cable w/filter	36.99
CP-12L Right angle cig cable w/filter	36.99
CS-T81 Windows cloning software; IC-T81A	13.99
OPC-474 Cloning cable (radio to radio)	18.99
OPC-478 PC to radio cloning cable	45.99
CSW-HH4 Windows prog software/cable	50.99
HM-46 Slim-line speaker/mic	45.99
HM-54 Heavy duty spkr/mic	83.99
HM-75A Remote control microphone	70.99
HM-128 Earphone+microphone	25.99
HM-131 Spkr/mic/earph jack/revolving clip	38.99
HS-51 Headset w/VOX	96.99
HS-85 Headset w/VOX	89.99
HS-94 Ear-piece style headset; use w/VS-1	24.99
VS-1 VOX-PTT unit for HS-94	42.99
LC-148 Carrying case; IC-T81A	24.99
OPC-254 Mini DC power cable	14.99
OPC-254L Right angle mini DC pwr cable	14.99
SP-13 Earphone	4.99
IC-T90A 5w 6m/2m/440 HT/batt/cgr/lith	259.99
AD-92SMA SMA- BNC adapter	16.99
CS-T90A Windows cloning software; IC-T90A	13.99
OPC-474 Cloning cable (radio to radio)	18.99
OPC-478 PC to radio cloning cable	45.99
HM-46 Slim-line speaker/mic	45.99
HM-75A Remote control microphone	70.99
HM-128 Earphone+microphone	25.99
HM-131 Spkr/mic/earph jack/revolving clip	38.99
HS-85 Headset w/VOX	89.99
HS-94 Ear-pc headset; use w/VS-1	24.99
VS-1 VOX-PTT unit for HS-94	42.99
SP-13 Earphone	4.99
LC-147 Carrying case; IC-T8A/HP Δ	9.99

Accessories for IC-2SAT/2SRA/24AT/W2A

AH-20 Replacement rcv ant; IC-2SRA Δ	$ 24.99
BP-83 7.2v 600ma battery Δ	79.99
BP-84 7.2v 1000ma battery Δ	99.99
BP-90 AA alkaline battery case Δ	35.99
IC-2GXAT/HP 7w 2m HT/batt/cgr/TTP	249.99
AD-25 Battery charger adapter Δ	49.99
AD-28 Batt pack adapter for rapid charger	18.99
BC-105A/BC-77 Extra wall charger Δ	29.99
BC-119-11 Desk charger (adapter required) D	69.99
BC-119-N11 Nicad/NiMH desk cgr (adapt required)	89.99
BP-130A Battery case Δ	35.99
BP-157A 900ma 7.2v battery	85.99
BP-174 600ma 12v battery	98.99
CP-13 Cig cable w/filter D	39.99
CP-13L Right angle cig cable w/filter Δ	39.99
HM-46 Slim-line speaker/mic	45.99
HM-46L Slim-line spkr/mic, rt angle plug	45.99
HM-54 Heavy duty spkr/mic	83.99
HM-128 Earphone+microphone	25.99
HS-51 Headset w/VOX	96.99
HS-94 Ear-piece style headset; use w/VS-1	24.99
VS-1 VOX-PTT unit for HS-94	42.99
LC-116 Carrying case; BP-130A/157A/160 D	19.99
LC-117 Carrying case for BP-132A D	19.99
MB-30 Mobile/wall bracket	41.99
OPC-288 Mini DC power cable Δ	19.99
SP-13 Earphone	4.99
AD-44 Batt adapter; rapid cgr; T21A Δ	.49
LC-110 Vinyl case; BP-153; ICT21A D	.69

ACCESSORIES

AG-25 2m mast mounted GaSFET preamp	$189.99
AG-35 430 MHz mast mounted preamp	199.99
AG-1200 1.2 GHz mast mt preamp	159.99

Icom - continued

	AES Price
CT-17 CI-V level converter	139.99
HM-12 Scan hand microphone	74.99
MB-23 Side mount carrying handle	15.99
OPC-137 Adapter cable; older Icom Xcvr Δ	19.99
PS-125 25A switching power supply	299.99
SM-6 Electret desk microphone	119.99
SM-20 Deluxe desk microphone	219.99
SP-5 Mobile speaker	54.99
SP-7 Small external speaker	94.99
SP-10 Slim-line external speaker	69.99
SP-20 Speaker w/audio filter	249.99
SP-21 External speaker	119.99

CONSUMER ELECTRONICS

A-22 5w compact Navicom air handheld	$399.99
GP-270ML Fixed mt marine GPS w/keypad	399.99
IC-M1V Waterproof 5w VHF marine handheld	199.99
IC-M3A 5w VHF marine handheld w/AA nicads	159.99
IC-M45AW White 25w VHF marine Xcvr	149.99
IC-M402W02 White waterproof 25w VHF marine	199.99
M-710 (21) 150w HF marine SSB spec order	1399.99
AT-130 HF marine auto ant tuner spec order	449.99
M-802 150w DSP marine SSB Xcvr spec order	1749.99
IC-4008A Family radio svc black handheld D	79.99
BC-127A Charger for 2 or 4 AA nicads	20.99
BP-202 Nicad battery assembly Δ	17.99
HM-46 Slim-line speaker/mic	45.99
HM-75A Remote control microphone	70.99
HM-128 Earphone+microphone	25.99
HS-51 Headset w/VOX	96.99
HS-85 Headset w/VOX	89.99
IC-F21-GM 15 ch 4w GMRS/FRS handheld	149.99

IDIOM PRESS (IDI)

K-3 Logikey CW keyer	$129.99
HK-3 Hook-up kit	10.99

International Ant (IAC)

160m double **Bazooka** 248' antenna	$214.99
80m double **Bazooka** 121' antenna	150.99
40m double **Bazooka** 64' antenna	126.99
160m-S 160m half sloper 127' antenna	140.99
80m-S 80m half sloper 67' antenna	115.99
40m-S 40m half sloper 33' antenna Δ	69.99

ISOTRON (ISO)

160C 160m 9.5' x 16" x 15" 100 KHz bandwidth ant	$173.99
80 80m 32" x 16" x 15" 110 KHz bandwidth ant	98.99
40 40m 22" x 16" x 15" 250 KHz bandwidth ant	88.99
20 20m 21" x 8" x 4" 350 KHz bandwidth ant	78.99
15 15m 21" x 1.5" x 4" 450 KHz bandwidth ant	78.99
10 10m 16" x 1.5" x 4" 1 MHz bandwidth ant	78.99
6 6m 16.5" x 2" x 4" 1.25 MHz bandwidth ant	78.99
80/40 Combo* 80/40m 32" x 16" x 30" ant	169.99
20/15/10 Combo 20/15/20m combo ant	198.99

*Requires coaxial "T's" & jumpers - not included

K-COM (KCO)

RF-1 Modular telephone 3-30 MHz RFI filter	$ 16.99
RF-1/Low Modular phone .5-3 MHz RFI filter	16.99
RF-1/2-line 2-line modular 3-30 MHz RFI filt	22.99
RF-1/coiled Coiled cord modular 3-30MHz filt	22.99
RF-2 Hard-wired telephone 3-30 MHz RFI filt	10.99

KC Tracker (See GRACE)

KANTRONICS (KAN)

KPC-3 Plus/128K Small packet TNC/128K RAM	$186.99
KPC-**9612 Plus/128K** 9600 controller/128K	369.99
(CSS) **Pacterm 98** Software; Kantronics TNCs	79.99
12VDC Adaptor 300ma adaptor; KPC-3	12.99
Host Master II+ IBM software	89.99
Superfax II WX FAX program for IBM D	49.99

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 Wi
Browse Our Store On-Line at www.aesham.com

Kantronics - continued AES Price

KAM 98 Single port multi-mode dig controller 399.99
(CSS) **Pacterm 98** Software; Kantronics TNCs 79.99
12VDC Adaptor 300ma adaptor; KAM 98 ..... 12.99
KAM XL All mode TNC w/DSP modems 399.99
(CSS) **Pacterm 98** Software; Kantronics TNCs 79.99
12VDC Adaptor 300ma adaptor; KAM XL 12.99
APRS adapter cable; GPS to Kantronics TNC . 32.99

KENWOOD (KEN)

DRU-2 Dig recording unit; TS-950SDX .....Δ $139.99
SP-950 Ext spkr/audio filters; TS-950SDX .....Δ 149.99
TS-B2000 PC ctl HF/6m/2m/430 Xcvr/tuner † *1399.99
*Price w/instant coupon; coupon expires 10/31/02
TS-2000 HF/6m/2m/430 Xcvr/ant tuner ....† *1759.99
*Price w/instant coupon; coupon expires 10/31/02
*UT-20 1.2GHz module Kenwood install only
TS-2000X HF/6m/2m/430/1.2 Xcvr/tuner *2399.99
*Price w/instant coupon; coupon expires 10/31/02
KPS-15 23A switching ps w/fan, 25A surge 149.99
PS-53 Heavy duty 22.5A power supply 249.99
ARCP-2000 PC control soft (inc w/TS-B2000) 82.99
DRU-3A Digital recording unit 129.99
MB-430 Mobile mounting bracket 49.99
MC-43S Extra 8-pin hand mic w/up-down . 59.99
MC-57DM Back-lit TTP hand mic 79.99
MC-60A 8-pin amp desk mic w/up-down .. 149.99
MC-80 8-pin electret desk mic w/up-down 109.99
MC-90 2-head DSP desk microphone 239.99
PG-2Y 13' DC cable 39.99
PG-2Z 6.5' heavy duty DC cable 37.99
RC-2000 Remote faceplate mobile kit 349.99
SP-23 External speaker 89.99
VS-3 Voice synthesizer 39.99
TS-870S 9-band Xcvr/Rcvr/IFDSP/tuner ....† 2299.99
KPS-15 23A switching ps w/fan, 25A surge 149.99
PS-52 Heavy duty power supply 269.99
DRU-3A Digital recording unit 129.99
MC-43S Extra 8-pin hand mic w/up-down . 59.99
MC-60A 8-pin amp desk mic w/up-down .. 149.99
MC-80 8-pin electret desk mic w/up-down 109.99
MC-90 2-head DSP desk microphone 239.99
PG-2Y 13' DC cable 39.99
PG-2Z 6.5' heavy duty DC cable 37.99
SO-2 TCXO unit 179.99
SP-31 External speaker 99.99
VS-2 Voice synthesizer 69.99
TS-570D(G) 9-band Xcvr/Rcv/AFDSP/tuner/mic † *889.99
*Price w/instant coupon; coupon expires 10/31/02
TS-570S(G) 9-band Xcv/6m/Rcv/AFDSP/tune/mic †*1059.99
*Price w/instant coupon; coupon expires 10/31/02
KPS-15 23A switching ps w/fan, 25A surge 149.99
PS-53 Heavy duty 22.5A power supply 249.99
DRU-3A Digital recording unit 129.99
MB-430 Mobile mounting bracket 49.99
MC-43S 8-pin hand mic w/up-down 59.99
MC-60A 8-pin amp desk mic w/up-down .. 149.99
MC-80 8-pin electret desk mic w/up-down 109.99
MC-90 2-head DSP desk microphone 239.99
PG-2Y 13' DC cable 39.99
PG-2Z 6.5' heavy duty DC cable 37.99
SO-2 TCXO unit 179.99
SP-23 External speaker 89.99
VS-3 Voice synthesizer 39.99
YK-88C-1 500 Hz CW filter 129.99
YK-88CN-1 270 Hz CW filter 129.99
YK-88SN-1 1.8 KHz SSB filter 129.99
TS-50S Compact HF Xcvr/SW Rcvr/mic/mt † 689.99
KPS-15 23A switching ps w/fan, 25A surge 149.99
PS-53 Heavy duty 22.5A power supply 249.99
AT-50 External HF auto tuner 329.99
PG-4M 18' extension cable for AT-50 ..... 29.99
MC-47 Extra multi-func 8-pin hand mic ... 59.99

Kenwood - continued AES Price

MC-60A 8-pin amp desk mic w/up-down .. 149.99
MC-80 8-pin electret desk mic w/up-down 109.99
PG-2Y 13' DC cable 39.99
PG-2Z 6.5' heavy duty DC cable 37.99
SO-2 TCXO unit 179.99
SP-23 External speaker 89.99
TC-50/50Case Travel case for TS-50S/60S 89.99
YK-107C 500 Hz CW filter 129.99
7-pin DIN plug 4.99
8-pin DIN plug 6.99
13-pin DIN plug 9.99
HS-5 Deluxe headphones 79.99
HS-6 Lightweight headphones 59.99
KPS-15 23A switching ps w/fan, 25A surge . 149.99
LF-30A 1kw PEP low pass filter 64.99
MC-43S 8-pin hand mic w/up-down switch .. 59.99
MC-60A 8-pin amp desk mic w/up-down 149.99
MC-80 8-pin electret desk mic w/up-down ... 109.99
PG-3B 15A DC line noise filter 29.99
SP-50B High quality external mobile speaker 55.99
TSU-5 Prog CTCSS decoder; TS-790A .....Δ 59.99
TU-7 Prog encoder; 2550/751A/TW-4100A .Δ 54.99
TU-8 CTCSS tone unit; TS-450S/690S .....Δ 54.99
YG-455C-1 500 Hz CW filter; TS-450/690 ..Δ 149.99
TM-642AD 50w 2m/25w 220FM/backlit TTP mic 739.99
TM-742AD 50w 2m/35w 440 FM/backlit TTP .† 639.99
DFK-3 9' separate display cable kit 26.99
DFK-4 13' remote cable kit 59.99
DFK-7 Deluxe 22' remote cable kit 89.99
MJ-88 Modular to 8-pin mic adapter 30.99
PG-2N Extra DC cable 17.99
TSU-7 CTCSS decoder unit 59.99
UT-50S 50w 6m unit 329.99
UT-220S 25w 220 MHz unit 329.99
UT-440S 35w 440 MHz unit 299.99
UT-1200 10w 1.2 GHz unit 399.99
TM-D700A 50w 2m/35w 440 FM/1200/9600 † 599.99
MB-201 Extra mobile bracket 25.99
MJ-88 Modular to 8-pin mic adapter 30.99
PG-2N Extra DC cable 17.99
PG-4X 13' extension cable kit 69.99
PG-5A Packet data cable 15.99
VS-3 Voice synthesizer 39.99
TM-G707A 50w 2m/35w 440 FM/TTP mic ..† 299.99
TM-V7A 50w 2m/35w 440 FM Xcvr/TTP mic † 419.99
DFK-3C 9' separate display cable kit 44.99
DFK-4C 13' remote cable kit 64.99
DFK-7C Deluxe 23' remote cable kit 99.99
MB-201 Extra mobile bracket 25.99
MJ-88 Modular to 8-pin mic adapter 30.99
PG-2N Extra DC cable 17.99
PG-4S PC interface cable 32.99
PG-5A Packet data cable 15.99
VS-3 Voice synthesizer 39.99
TM-331A 25w 220 FM Xcvr w/TTP mic 499.99
KQT-8/TSU-6 Prog CTCSS decoder 49.99
MB-201 Extra mobile bracket 25.99
PG-2N Extra DC cable 17.99
TM-541A 10w 1.2 GHz FM Xcvr/TTP/encoder 449.99
DTU-2 Digital paging unit .....D 14.99
KQT-8/TSU-6 Prog CTCSS decoder 49.99
MB-201 Extra mobile bracket 25.99
PG-2N Extra DC cable 17.99
TM-261A 50w 2m FM Xcvr w/TTP mic .....† 149.99
TM-461A 35w 440 FM Xcvr w/TTP mic 439.99
MB-201 Extra mobile bracket 25.99
PG-2N Extra DC cable 17.99
TSU-8 CTCSS decoder 59.99
MC-57DM Back-lit TTP mic;241/331/441/541 .. 79.99
MC-58DM Back-lit TTP mic;251/733/742/255/V7A 79.99
ME-1 Mem expansion; TH-28A/78A/TM-251A D 2.99

Kenwood - continued AES Price

TH-22ATH 5w 2m FM HT/batt/cgr/TTP 219.99
BT-9 4-AA battery holder 29.99
EMC-3 Lapel clip mic/ear piece 29.99
HMC-3 VOX/boom mic headset 59.99
KSC-8A Drop-in cgr; 25/26/75/77/22/42/79 26.99
KSC-14 2-pack rapid charger 87.99
PB-33 1200ma 6v battery 89.99
PB-34 600ma 9.6v (5w) battery 89.99
PG-2W DC cable w/fuse 17.99
PG-3J Cig lighter cord w/filter 36.99
SMC-32 Mini water resist rt angle spkr/mic . 52.99
SMC-33 Speaker/mic w/remote control 65.99
SMC-34 Spkr/mic w/vol cont/function keys 39.99
TSU-8 CTCSS decoder; TH-22/42AT 59.99
WR-2 Water resistant bag; TH-22/42AT 29.99
TH-G71A 5w 2m/440 FM HT/batt/cgr/TTP .† 249.99
TH-D7A(G) 5w 2m/440 FM HT/1200/9600 TNC † 429.99
BC-19 Rapid charger 64.99
BT-11 4-AA battery holder 17.99
EMC-3 Lapel clip mic/ear piece 29.99
HMC-3 VOX/boom mic headset 59.99
J29-0631-13 Belt clip for batt; D7A/G71A . 4.99
PB-38 650ma 6v battery .....D 19.99
PB-39 600ma 9.6v (5w) battery 57.99
PG-2W DC cable w/fuse 17.99
PG-3J Cig lighter cord w/filter 36.99
PG-4P Computer control cable; TH-G71A .. 32.99
PG-4V VC-H1 connection cable TH-D7A(G) 49.99
PG-4W PC software/cable; TH-D7A(G) 55.99
SC-45 Soft case for TH-G71A/PB-38/39 .... 15.99
SC-47B Black soft case for TH-D7A(G) 15.99
SC-470R Orange soft case for TH-D7A(G) . 15.99
SMC-32 Mini water resist rt angle spkr/mic . 52.99
SMC-33 Speaker/mic w/remote control 65.99
SMC-34 Spkr/mic w/vol cont/function keys 39.99
WR-2 Water resistant bag; TH-G71A 29.99
TH-F6A 5w 2m/220/440 FM HT/lith ion batt † 329.99
BT-13 AA battery case 25.99
EMC-3 Lapel clip mic/ear piece 29.99
HMC-3 VOX/boom mic headset 59.99
PB-42L Extra lithium ion battery 79.99
PG-2W DC cable w/fuse 17.99
PG-3J Cig lighter cord w/filter 36.99
PG-4P Computer control cable 32.99
SC-51 Soft case w/swivel belt clip 16.99
SMC-32 Mini water resist rt angle spkr/mic . 52.99
SMC-33 Speaker/mic w/remote control 65.99
SMC-34 Spkr/mic w/vol cont/function keys 39.99
BT-10 6 AA alk batt case; TH-235A .....D 2.99
VC-H1 Visual Communicator SSTV unit ....† 399.99
E30-3352-08 16-pin DIN/unterminated cbl 44.99
E59-0407-08 16-pin DIN plug only 29.99
KCT-24S VCH-1 to PC software/cable 58.99
PG-4T VC-H1 to Kenwood FM mobile cable 49.99
SC-46P Protective case 18.99
EK-AMA1 Portable emergency kit special order 5399.99

CONSUMER ELECTRONICS

TKM-707 150w HF marine SSB Xcvr spec order 1249.99
KAT-1 HF marine auto ant tuner ...spec order 569.99
UBZ-LH14BK Deluxe FRS black handheld .....† 79.99
EMC-3 Label clip mic/ear piece 29.99
HMC-3 VOX/boom mic headset 59.99
SMC-34 Spkr/mic/vol cont/function keys ... 39.99
UBC-3 Nicad desk charger .....D 14.99
UBC-4 Nicad desk charger 25.99
UPB-2 Nicad battery pack 24.99
USC-5B Black nylon case 15.99
UBZ-GR14BK FRS metalic blue handheld .....D 19.99

KOSS (KOS)

HD/33 Computer stereophone/vol control ....Δ $ 4.99

Koss - continued

	AES Price
KTX/2 Portable stereophone/adj headband .D	4.99
KTX/4 Collapsible stereophone w/vol control .	14.99
QZ/99 Noise reduction stereoph w/mono sw .	59.99
QZ/2000 Active noise reduction stereophone	179.99

LDG (LDG)

AT-11MP 160-10m auto antenna tuner	$219.99
MP-Head MP remote head	39.99
MP-AL-Cable MP Alinco interface cable	5.99
MP-IC-Cable MP Icom interface cable	5.99
RBA-1 Remote 4:1 balun; long/random/end fed	30.99
RT-11 160-6m remote auto antenna tuner	199.99
RT-Head RT remote head	39.99
RT-AL-Cable RT Alinco interface cable	15.99
RT-IC-Cable RT Icom interface cable	15.99
RBA-1 Remote 4:1 balun; long/random/end fed	30.99
Z-11 30w QRP auto antenna tuner	169.99

LAKEVIEW (LAK)

9175 75m 7' Hamstick antenna	$ 24.99
9140 40m 7' Hamstick antenna	24.99
9130 30m 7' Hamstick antenna	24.99
9120 20m 7' Hamstick antenna	24.99
9117 17m 7' Hamstick antenna	24.99
9115 15m 7' Hamstick antenna	24.99
9112 12m 7' Hamstick antenna	24.99
9110 10m 7' Hamstick antenna	24.99
9106 6m 4.5' Hamstick antenna	24.99
901 Dipole mount for 2 Hamsticks	14.99
IM-1 Inducti-match for 75-12m mobile ant	17.99
TM-1 License plate mount, ⅜-24	44.99
TM-1-Plus License plate mount, SO-239	44.99

LARSEN (LAR)

27-31 MHz ANTENNA

NMO-27B 10m black ant only (no mount)	$ 36.99
NMO-27C 10m ant only (no mount)	33.99

47-54 MHz ANTENNA

NMO-50B 6m black ant only (no mount)	$ 36.99
NMO-50C 6m ant only (no mount)	33.99

144-174 MHz ANTENNAS

NMO-150B 2m black ant only (no mt), 3 db .	$ 33.99
NMO-150C 2m ant only (no mount), 3 db	30.99

220-265 MHz ANTENNAS

NMO-220B 220 black ant only (no mt), 3 db	$ 36.99
NMO-220C 220 ant only (no mount), 3 db	30.99

440-460 MHz ANTENNAS

NMO-440B 440 black ant only (no mt), 4.5db	$ 35.99
NMO-440C 440 ant only (no mount), 4.5 db .	29.99
MM-2/70 2m/440 ¼ wave/2db mag mt ant	50.99
NMO-2/70B 2m/440 blk ant only (no mt), 2/4db	65.99
NMO-2/70C 2m/440 ant (no mount), 2/4db	60.99
NMO-2/70-SH 2m/440 ant (no mt), ¼ wv/2db	40.99
NMOQ-Spec 136-512 MHz ¼ wave ant (no mt)	13.99
NMOQ-Spec-B 136-512 black ¼ wv ant (no mt)	15.99
NMOQ-Spec-K 136-512MHz ¼ wv ¾" hole ant	28.99
NMOQ-2/70-B 2m/440 ¼ wv cell look ant (no mt)	36.99

ON GLASS ANTENNAS

KG-144-UD-PL 2m 3 db on glass antenna	$ 83.99
KG-220-UD-PL 220 3 db on glass antenna	83.99
KG-440-UD-PL 440 2.4 db on glass antenna	71.99
KG-2/70-CX-PL 2m/440 2.5/4.5db on glass .	116.99
KG-Reinstall Reinstall kit for KG-ants	8.99

KULDUCKIES - For Hand-helds

KD4-146 2m BNC Kulduckie	$ 20.99
KD4-2/70 2m/440 BNC Kulduckie	35.99
KD4-222 220 BNC Kulduckie	20.99
KD14-445 440 ¼ wave BNC Kulduckie	19.99
KD4-146-HQ 2m part helical, part ¼ wave BNC	25.99
KD14-2M-HW 2m ½ wave BNC antenna	38.99

Larsen - continued

	AES Price
KD14-440-HW 440 ½ wave BNC antenna	38.99

ACCESSORIES

BSA-K Base mtg kit; NMO/UHF mt mobile ant	$ 53.99
NMO-B38 NMO mt hdw/A-7 NLA adapter	13.99
NMO-CAP-B Black rain cap for NMO mount	4.99
NMO-K ¾" hole mt w/coax for NMO ant	15.99
NMO-MM Magnet mt, coax for NMO ant	32.99
NMO-TLP Low profile tnk lid mt, coax; NMO ant	29.99
PO-K Roof mt, coax for SO-239 ant	30.99
PO-MM Magnet mt, coax for SO-239 ant	36.99
PO-TLM Trunk lip mt, coax for SO-239 ant .D	19.99
RG-SS Extra super seal NMO gaskets (3)	3.99
SPRING Shock spring	10.99
TMB-34 Trunk mtg bkt for NMO antenna	5.99
TMB-34B Black trunk mtg bkt for NMO ant	7.99
W-2/70B 2m/440 black replacement whip	27.99
W-490 49" replacement whip	9.99
W-490B Black 49" replacement whip	12.99

LIGHTWAVE (LIG)

LW-HT 4 LED/3 AA-cell illuminator head torch	$ 39.99
LW-PB 1 LED/2 lith-cell pocket flashlight	19.99
LW-2000 4 LED/3 AA-cell flashlight	29.99
LW-3000 7 LED/3 C-cell flashlight	49.99
LW-4000 10 LED/3 D-cell flashlight	59.99

LOGSAT (LOG)

Logsat Professional Satellite tracking CDROM	$ 69.99

M² (MSQ)

KT-36XA 20/15/10m 6el 32' boom beam	1399.99
40M-1LDX 6.9-10 MHz rotatable dipole	543.99
20M-4DX 20m 7.4db 4el 34' boom beam	640.99
17M-3DX 17m 6.3db 3el 18' boom beam	483.99
17M-5DX 17m 8.6db 5el 36' boom beam	640.99
15M-4DX 15m 8.5db 4el 33' 8" boom beam .	543.99
12M-4DX 12m 8.6db 4el 27' boom beam	483.99
10M-4DX 10m 8.7db 4el 23' boom beam	483.99
6M-3 6m 50-50.6 or 51-54 6.4db 3el 6'9" bm beam	149.99
6M-5X Upgrade Kit; 6M-5 to 6M-5X .....Δ	29.99
6M-5X 6m 50-50.5 or 51-54 9.4db 5el 18' bm beam	249.99
6M-7JHV 6m 50-50.4 10.9db 7el 30'8"bm beam	309.99
6M-2WLC 6m 49.7-50.5 11.9db 9el 39' 6" boom T*	558.99
6M-9KHW 6m 50-50.4 12.7db 9el 49' 4" bm beam	604.99
6M-HO-LOOP 6m 50-50.3 4.4db horiz loop ant	113.99
6" x 1/2" 3/8-24 mobile mast for loop	10.99
16" x 1/2" 3/8-24 mobile mast for loop	12.99
18" x 5/8" 3/8-24 mobile mast for loop	17.99
36" x 1/2" 3/8-24 mobile mast for loop	28.99
50" x 1/2" 3/8-24 mobile mast for loop	31.99
MAST BKT KIT For 6M-HO-LOOP	19.99
2M-4 2m 7.5db 4el 4' boom beam	113.99
2M-7 2m 10.3db 7el 8'10" boom beam	127.99
2M-9FM 2m 145-148 12db 9el 14' 6" bm beam	149.99
2M-9SSB 2m 144-146 12db 9el 14' 6" bm beam	149.99
2M-12 2m 12.8db 12el 19'6" boom beam	199.99
2M-5WL 2m 14.8db 17el 33' boom beam	249.99
2M-18XXX 2m 144-146 15.3db 18el 36'3" bm beam	289.99
2M-8WLHD 2m 144-144.7 17db 21el 55' bm beam	672.99
2M-CP14 2m 10.3db 7h/7v 10'6"bm circ beam	215.99
2M-CP22 2m 12.5db 11h/11v 18'6"bm circ beam	290.99
PS-2M 2m polarity switch; circ pol beam	177.99
FG X-Boom Kit For circular antennas, etc.	164.99
2M-XP20 144-146 13.3db 10h/10v 21.5' bm cross pol	249.99
2M-XP28 144-146 15.1db 14h/14v 34.5'bm cross pol	348.99
2M5-440XP 2m/440 9/12db 5/10el 5'8" bm beam	199.99
2M-HO-LOOP 2m 144-144.5 4.86db horiz loop	49.99
6" x 1/2" 3/8-24 mobile mast for loop	10.99
16" x 1/2" 3/8-24 mobile mast for loop	12.99
18" x 5/8" 3/8-24 mobile mast for loop	17.99
36" x 1/2" 3/8-24 mobile mast for loop	28.99
50" x 1/2" 3/8-24 mobile mast for loop	31.99

M² - continued

	AES Price
Big-Foot 4x-mag mt; 2M-HO-LOOP stack/etc	120.99
MAG-KIT Magnet mt kit; single 2m-HO-LOOP	24.99
MAST BKT KIT For 2M-HO-LOOP	19.99
STACK-KIT Stack kit for 2 2m-HO-LOOP's	74.99
TOP BKT KIT For 2M-HO-LOOP	24.99
EB-144 2m Eggbeater omni/hor/rhc overhead D	139.99
RK-2M 2m 6db overhead reflector kit/base mt D	43.99
EB-144/RK-2M 2m Eggbeater w/reflector kit	212.99
222-7EZ 220 9.8db 7el 5' 8" boom beam	113.99
222-10EZ 220 12db 10el 9' 9" boom beam	125.99
222-5WL 220 15.2db 15el 23'3" boom beam	199.99
222-7WL 220 16.4db 23el 32'5" boom beam	249.99
222-XP30 220 15.2db 15h/15v 24'3"bm cross pol	350.99
222-HO-LOOP 220-224 4.75db horiz loop ant	49.99
6" x 1/2" 3/8-24 mobile mast for loop	10.99
16" x 1/2" 3/8-24 mobile mast for loop	12.99
18" x 5/8" 3/8-24 mobile mast for loop	17.99
36" x 1/2" 3/8-24 mobile mast for loop	28.99
50" x 1/2" 3/8-24 mobile mast for loop	31.99
MAG-KIT Magnet mt kit; single 222-HO-LOOP	24.99
440-470-5W 440-470 7.8db 5el 2'2"bm beam	165.99
420-50-11 432 11.3db 11el 5' bm rear mt beam	113.99
440-18 432 14.5db 18el 11'4" boom beam	149.99
440-21ATV 432 15.9db 21el 14'6" bm ATV beam	177.99
436-CP30 432 14.5db 15h/15v 9'9"bm circ beam	290.99
436-CP42UG 432 16.8db 21h/21v 18'10"bm circ	341.99
PS-70CM 432 polarity switch; circ pol beam	177.99
FG X-Boom Kit For circular antennas, etc.	164.99
432-9WL 432 17.3db 28el 21' boom beam	215.99
432-13WLA 432 18.6db 38el 30'8" bm beam	289.99
432-HO-LOOP 430-436 5db horiz loop ant	49.99
6" x 1/2" 3/8-24 mobile mast for loop	10.99
16" x 1/2" 3/8-24 mobile mast for loop	12.99
18" x 5/8" 3/8-24 mobile mast for loop	17.99
36" x 1/2" 3/8-24 mobile mast for loop	28.99
50" x 1/2" 3/8-24 mobile mast for loop	31.99
Big-Foot 4x-mag mt; 432-HO-LOOP stack/etc	120.99
MAG-KIT Mag mt kit; single 432-HO-LOOP	24.99
STACK-KIT-70CM Stack kit; 2 432-HO-LOOP's	74.99
TOP BKT KIT For 432-HO-LOOP	24.99
EB-432 432 Eggbeater omni/hor/rhc overhead D	129.99
RK-70CM 432 6db overhead reflector kit/base mt D	43.99
EB-432/RK-70CM 432 Eggbeater w/reflector kit	199.99
902-6W 900MHz 10db 6el 2' boom beam	75.99
902-10EZ 900MHz 12.6db 10el 3'5"bm beam	113.99
902-18EZ 900MHz 14.8db 18el 5'4"bm beam	165.99
902-14WLA 900MHz 18.8db 40el 15 4" bm beam	253.99
23CM-22EZA 1.2GHz 16db 22el 5'2" bm beam	149.99
23CM-35 1.2GHz 18.4db 35el 10' bm beam	199.99
2M-2-Port-PD 2m 2-port type N power divider	69.99
70CM-2-Port-PD 432 2-port N power divider	69.99
23CM-2-Port-PD 1.2GHz 2-port N power divider	69.99
FAST MAST 20' extended port alum mast ...D	169.99
OR-2800PDC 35 sq ft azimuth rotor/control/8-wire	1572.99
RC-2800PP Control box; prop pitch .spec order	599.99

***These items are drop-shipped (shipped direct to you from the M² factory). On these factory drop-shipments we prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your drop-shipped merchandise. Shipment is FOB Fresno, California via truck, COD for freight charges only. Freight charges will be collected upon delivery by the carrier. Please allow sufficient time for delivery on these special order items.**

MFJ ANTENNA TUNERS (MFJ)

989C Dlx 3kw PEP w/roller inductor	$319.99
986 3kw PEP w/roller inductor	299.99
962D 1.5kw PEP/meter/switch/balun/roller ind	249.99
969 HF & 6m 300w roller inductor tuner	189.99
949E 300w/PEP meter/dummy/switch/balun	139.99
948 300w/meter/switch/balun	119.99

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

MFJ - continued

	AES Price
941E 300w tuner w/meter, switch, balun	109.99
945E 300w tuner w/meter plus 6m	99.99
20 Mobile bracket for 945E	4.99
901B Versa Tuner 200w ant tuner	79.99
910 80-10m mobile antenna matcher	19.99
16010 200w random wire tuner	49.99
903 6m antenna tuner	49.99
906 6m antenna tuner w/wattmeter	79.99
914 Auto tuner extender	59.99
921 2m/220 300w PEP tuner/SWR/wattmeter	69.99
922 2m/440 150w tuner/SWR/wattmeter	79.99
924 440 MHz 300w PEP tuner/SWR/wattmeter	69.99
934 300w tuner w/artificial ground	169.99
940A 10m antenna tuner/SWR/wattmeter ..D	59.99

MEMORY KEYERS

451 Dedicated CW keyboard w/memory	$ 99.99
451X Morse keyboard interface only ....Δ	64.99
452 CW keyboard/keyer w/disp/keyboard	129.99
452X CW keyboard/keyer w/disp, no keyboard	99.99
498 Dlx CW keyboard/keyer w/disp/keyboard	179.99
490 492 keyer/Bencher paddle combo	189.99
490X 492 keyer for use w/Bencher or 564	99.99
564 Deluxe iambic paddle for 490X	49.99
492 192 char menu driven memory keyer	89.99
78 Remote control for 492/492X ....Δ	19.99
495 Millennium memory keyer	149.99
551 IBM AT-101 keyboard for 493 ....Δ	29.99
5409 9-pin serial port 6' cable for 493 ....Δ	9.99
5425 25-pin serial port 6' cable for 493 ....Δ	9.99

ELECTRONIC KEYERS

407D Deluxe electronic keyer	$ 69.99
401D Econo keyer	49.99

KEYER/PADDLES

422D Keyer/Bencher paddle combination	$159.99
422DX Keyer only	79.99
441 SlimLine econo keyer	59.99
442 SlimLine keyer/Bencher paddle combo	149.99
442X SlimLine keyer only ....Δ	59.99
447 SlimLine deluxe keyer	79.99
564 Deluxe iambic chrome paddle	49.99
564B Deluxe iambic black paddle	49.99

COMPUTER INTERFACES

1224 Interface	$ 99.99
1265 Disk software for VIC/C64; 1224 ....D	4.99
1285 Software for IBM; 1224	19.99
1270C Packet radio TNC2	119.99
47B Mailbox 128k memory; 1270/1274 ...Δ	39.99
1278B Multi-mode controller w/Pactor	279.99
1278B/DSP Controller w/Pactor & DSP	359.99
48 1278 upgrade	24.99
48B 1278B upgrade ....Δ	19.99
52 TNC2 deviation meter board	29.99
780 DSP data filter for 1278B	89.99
1282 C64 starter pack ....D	2.99
1282BD Multicom 64 disk only ....D	.99
1284 5¼" IBM starter pack ....D	9.99
1284D 1284 disk only ....D	.99
1284M 3½" IBM starter pack	24.99
1284MD 1284M disk only ....Δ	2.99
1284W MFJCOM for Windows	29.99
1287 Macintosh starter pack ....D	4.99
1287B Mac multicom starter pack ....Δ	9.99
1287BD 1287B disk only ....Δ	.99
1287D 1287 disk only ....D	.49
1288 Packet terminal program ....D	.99
1289 5¼" multicom software for IBM ....D	9.99
1289D 1289 disks only ....D	2.99
1289M 3½" multicom software for IBM	59.99
1289MD 1289M disks only ....Δ	19.99
1289W Multicom for Windows with cable	59.99

MFJ - continued

	AES Price
1289WD Multicom for Windows, less cable	49.99
1214PC Multimode interface for IBM	139.99
43 Real time clock for TNC ....D	9.99
44 Plug-in scope tuning adapter ....D	9.99
781 DSP filter for any TNC or controller	119.99
1272B TNC to microphone interface	39.99
1272BYH TNC/mic switch; KAM HF	39.99
1272BYV TNC/mic switch; KAM VHF	39.99
1272M TNC/mic RJ-45 switch; MFJ/PK-900	39.99
1272MYH TNC/mic RJ-45 switch; KAM HF ..Δ	24.99
1272MYV TNC/mic RJ-45 sw; KAM VHF; KPC3	39.99

SSB/CW FILTERS

722 SSB/CW notch filter ....Δ	$ 49.99
751B Super tunable CW audio filter	69.99
752C Dual tunable SSB/CW filter	89.99
784B Deluxe tuneable DSP filter	229.99
5184 Cable pack for 784B	7.99

PHONE PATCH

624D Phone patch w/audio VU meter	$119.99

DUMMY LOADS

250 2kw PEP dummy load w/oil	$ 59.99
250X 2kw PEP dummy load, less oil	39.99
21 1 gal industrial xfmr oil for wet dummy	24.99
260C 300w 0-650 MHz dry dummy load	34.99
260CN 300w 0-650 MHz type N dry dummy	39.99
264 1.5kw 0-650 MHz dry dummy load	69.99
264N 1.5kw 0-650 MHz type N dry dummy	79.99
267 1.8-54 100w dry dummy load/SWR/wattmeter	119.99

SWR/WATTMETERS

812B 144-220 MHz SWR/FS/wattmeter	$ 34.99
815B 160-6m cross-needle SWR/wattmeter	79.99
816 1.8-30 MHz toroidal SWR/wattmeter	34.99
817 2m/440 cross needle meter	89.99
841 2m 5w in-line HT wattmeter/SWR	39.99
844 Compact 2m/440 SWR/wattmeter	69.99
860 1.8-60 MHz cross-needle meter	44.99
862 2m/220/440 cross-needle meter	54.99
864 1.8-60MHz/2m/440 cross needle meter	84.99
870 1.6-60MHz Grandmaster SWR/wattmeter	124.99
872 1.8-200MHz Grandmaster SWR/wattmeter	94.99
873 125-525MHz Grandmaster SWR/wattmeter	104.99
874 1.8-525MHz Grandmaster SWR/wattmeter	159.99

SHORTWAVE ACCESSORIES

306 Car radio SWL converter	$ 89.99
956 LW/MW/SW preselector/tuner	49.99
959C SW receiver ant tuner w/preamp	99.99
1020C .3-30 MHz indoor active receive ant	79.99
1022 300KHz-200MHz active rcv antenna	49.99
1024 .05-30 MHz outdoor active rcv ant	129.99
1040B Deluxe receiver preselector	99.99
1045C Receiver preselector	69.99

BOOKS

30 Golden Classics book	$ 9.95
32 Packet Made Easy book	9.95
33 Mobile Handbook book	12.95
35 World of Ham Radio book ....Δ	3.99
36 Shortwave Listeners Guide; Apts/Condos	9.95
37 Ham Communications Circuit Files book	9.95
38 Easy-up Antennas book	16.95
3036 The Packet Radio Operators book	12.95
3101 Fox Hunt Adventure book	7.95
3211 Technician license guide	9.95
3213 General license guide	9.95
3301 Troubleshooting Antenna & Feedlines book	12.95
3302 73 Dipole and Long-Wire Antennas	12.95
3303 73 Vertical, Beam, and Triangle Ants	12.95
3305 Antennas & Transmission Lines book	19.95
3400 Morse Code: Breaking the Barrier	19.95
3502 Solid State QRP Projects	12.95
3504 FET Principles, Experiments & Projects	16.95

MFJ - continued

	AES Price
3506 Ferromagnetic-Core Design book	19.95
3507 Practical RF Design Manual	19.95
3508 Radio Components Handbook ....D	9.99
3509 Ladder Crystal Filters	19.95

CLOCKS

105C 24-hour quartz wall clock	$ 19.99
107B 24-hour digital clock	9.99
108B 24/12-hour dual disp digital clock	19.99
112B Deluxe world map clock	24.99
113 24/12-hr 1.8" LED clock/batt back-up	19.99
115 DX'er 24-hour analog world wall clock	24.99
116DC 12-hour 12vdc LED clock ....Δ	9.99
118 Giant 24/12 hour LCD clock	24.99
123 Eternity solar atomic clock	79.99
125 Calendar 24-hour analog wall clock	29.99
132AT 12-hour LCD see-thru clock ....Δ	14.99
152B Thermo clock; in/out temp/12/24-hr clock D	24.99

ANTENNAS

343 1⅛" hole mount for 3/8-24 whip	$ 9.99
1402 2m/440 0/3db 16.5" 100w ant only	34.99
1412 2m/440 3/5.5db 40" 200w ant only	49.99
1422 2m/440 3.2/5.7db 41.5" 150w ant only	49.99
1432 2m/440 5/7.6db 62.5" 150w ant only	69.99
1436 6m/2m/440 2.15/4.5/7.2db 59" ant only	79.99
333BM 3.5" HiFlux NMO mag mt; not 1436	14.99
333BS 3.5" HiFlux SO-239 magt mt not 1436	14.99
335BM 5" HiFlux NMO mag mt; not 1436	19.99
335BS 5" HiFlux SO-239 mag mt; not 1436	19.99
340 Mirror/luggage pipe clamp mount	34.99
345 Trunk/hatchback lip mount	34.99
1516 2m 15' vertical base antenna	94.99
1621 40-10m 54" portable ant w/tuner	89.99
1622 40-2m apartment antenna	89.99
1624 40-6m mini bugcatcher antenna	79.99
1710 2m ⅜ wave telescopic antenna	9.99
1712 2m/440 telescopic antenna	14.99
1713 2m/440 SuperFlex Thin Duk HT ant	19.99
1713S 2m/440 SuperFlex SMA Thin Duk ant	19.99
1714 2m ½ wave telescopic antenna	16.99
1715 2m/440 SuperFlex gain Thin Duk HT ant	24.99
1715S 2m/440 SuperFlex gain SMA Thin Duk	24.99
1716 2m/440 duck for HT	16.99
1716S 2m/440 SMA duck for HT	16.99
1717 2m/2.15db 440 duck for HT	21.99
1717PL 2m/440 foldover flexi-duck, PL-259	24.99
1717S 2m/2.15db 440 SMA duck for HT	21.99
1719 2m/440/1.2GHz Midget Duck	19.99
1719S 2m/440/1.2GHz SMA Midget Duck	19.99
1720S 6m/2m/440 SMA Duck	29.99
1721 2m HT UltraLite mag mt antenna	14.99
1722 2m/440 HT UltraLite mag mt antenna	18.99
1724B 2m/440 magnet mt antenna	16.99
1727 10m magnet mt antenna	39.99
1728B 6m ¼ wv/2m ⅝ wv mag ant/PL259/BNC	29.99
1729 2m/440 magnet mt antenna	34.99
1730 2m pocket roll-up vertical antenna	19.99
1734 2m/440 2.6/6.3db glass mt antenna	39.99
1736 6m J-Pole travel antenna	29.99
1738 2m 2.6db glass mt antenna	29.99
94 Remount kit for 1734/1738	4.99
1740 2m ¼ wave ground plane ant	19.99
1750 2m ⅝ wave ground plane ant	24.99
1752 220 ⅝ wave ground plane ant	24.99
1754 2m/440 ground plane antenna	29.99
1756 6m DX vertical antenna	79.99
1762 6m 6db 3 el 6' boom beam	79.99
1763 2m 3el portable beam	44.99
1764 2 & 6m dual ⅝ super gain base ant	49.99
1768 2m/440 4/7 el beam antenna	79.99
1778 G5RV 160-10m 102' ant (needs tuner)	39.99
1786 Super Hi-Q 10-30 MHz loop/dlx control	349.99

MFJ - continued

AES Price

1788 Super Hi-Q 40-15m loop/dlx controller 389.99
[illegible] 6/2m 10' vertical ant 189.99
[illegible] 30/20/17/15/12/10/6/2m 20' vert 269.99
[illegible] 5" flexible/telescopic duck Δ 9.99
[illegible] 5" flexible/tele duck .....D 17.99
[illegible] telescopic antenna for FT-817 129.99
[illegible] telescopic fiberglass mast 79.99

CABLES

[illegible] FT50R/compat ..... $ 15.99
[illegible] C3 - Yae FT50R/compat 15.99
[illegible] - Alinco/Standard HT cable 15.99
[illegible] VHF/KPC3 - Ali/Sta HT cable 15.99
[illegible] Yae/Ali/RS HT cable 15.99
[illegible] compat - Ico/Yae/RS 15.99
[illegible] KPC3 - Ico/Yae/Ali/RS HT ... 15.99
[illegible] wood HT cable 15.99
[illegible] 3 - Kenwood HT cable .. 15.99
[illegible] acc 6-pin mini DIN 19.99
[illegible]YQ KPC9612 - Ken/Yae acc 6pin mini DIN ... 19.99
5060YV KAM VHF/KPC3 - Ke/Ya acc 6pin mni DIN 19.99
5063 MFJ TNC - Icom HF acc 8-pin DIN 19.99
[illegible] - Icom HF acc 8-pin DIN 19.99
[illegible] - Icom VHF acc 8-pin DIN 19.99
[illegible] - Icom VHF 8-pin DIN .....Δ 4.99
[illegible] PC3 - Ico VHF acc 8pin DIN Δ 6.99
[illegible] Ico IC-706 acc 13-pin DIN ... 19.99
[illegible] KAM HF - Ico IC-706 acc 13-pin DIN 19.99
[illegible] KAM VHF - Ico IC706 acc 13-pin DIN 19.99
[illegible] Kenwood HF acc 13-pin DIN 19.99
[illegible] Ken HF acc 13-pin DIN 19.99
[illegible] su 8-pin cable 15.99
[illegible] MFJ TNC - Yaesu 8-pin modular 15.99
[illegible]MYV KAM VHF/KPC3 - Yae 2500M/7400H 15.99
[illegible] Yaesu 8-pin cable 15.99
[illegible] KPC3 - Yaesu 8-pin cable .. 15.99
[illegible] Open end - 8-pin mic cable 9.99
[illegible] MFJ TNC - Icom 8-pin cable 15.99
[illegible] Icom 8-pin modular 15.99
[illegible] F/KPC3 - Icom 8-pin mod .. 15.99
[illegible] KAM HF port - Icom 8-pin cable 15.99
[illegible] KAM VHF/KPC3 - Icom 8-pin cable ... 15.99
[illegible] wood/Alinco 8-pin cable 15.99
[illegible] wood 8-pin modular ... 15.99
[illegible] C3 - Ken 8-pin mod ... 15.99
[illegible] - Ken/Ali 8-pin cable ... 15.99
[illegible] 3 - Ken/Ali 8-pin cable 15.99
[illegible] io Shack 8-pin modular 15.99
[illegible] end cable 4.99
[illegible] HF/VHF acc 8-pin DIN .. 9.99
[illegible] Kenwood acc 13-pin DIN ... 9.99
[illegible] end - Yae FT50R/compat .. 9.99
[illegible] nd - Ali split HT cable 9.99
[illegible] - Ico/Yae/Ali/RS HT cable 9.99
[illegible] end - modular phone plug cable . 9.99
[illegible] inter cable 9.99
[illegible] DB-25M-25F .....Δ 1.99
[illegible]14 RS-232 6' cable DB-25M-9F 9.99
5803/10 3' coax jumper cable 5.99

RADIOS/TRANSCEIVERS

8100K Shortwave regenerative Rcvr kit ..... $ 69.99
[illegible] ve regenerative Rcvr wired ... 89.99
[illegible] ve portable receiver 39.99
[illegible] .....Δ 29.99
[illegible]00W 2m receiver wired .....Δ 49.99
[illegible]621 5w 2m data radio w/145.01 MHz 139.99
[illegible]621X2 5w APRS ready 2m data radio/144.39 . 149.99
[illegible] power supply 49.99
[illegible] ble - MFJ/TAPR 15.99
[illegible] able - KPC-9612 .....Δ 2.99
[illegible] Data radio cable - KAM/KPC-3 ..... 15.99
5106 Open end - 6pin mini Ken/Yae cable 4.99

MFJ - continued

AES Price

8708 4ch ham micro ATV transmitter 149.99
9015 5w 15m CW Xcvr 169.99
9020 5w 20m CW Xcvr 169.99
9030 5w 30m CW Xcvr 169.99
9040 5w 40m CW Xcvr 169.99
27 Handle for CW station 4.99
412 Plug-in Curtis keyer 49.99
726 Plug-in audio filter 29.99
971 200w portable ant tuner w/meter 99.99
1771 Portable 17m dipole .....Δ 29.99
1772 Portable 20m dipole 39.99
1773 Portable 30m dipole .....Δ 29.99
1774 Portable 40m dipole 39.99
4110 Portable AC power supply 49.99
4114 Rechargeable power pack 69.99
9117B 9017 Xcvr/tuner/ps/ant package ....Δ 229.99
9130B 9030 Xcvr/tuner/ps/ant package 329.99
9140B 9040 Xcvr/tuner/ps/ant package 329.99
9402X 7w PEP 2m SSB Xcvr w/mic 269.99
9406X 10w PEP 6m SSB Xcvr w/mic 249.99
9410X 20w PEP 10m SSB Xcvr w/mic 249.99
9420X 12w 20m SSB Xcvr w/mic 229.99
9440X 12w 40m SSB Xcvr w/mic 229.99
9475X 12w 75m SSB Xcvr w/mic 229.99
415B SSB Xcvr CW adapter; 9420X/9440X 49.99
416 CW adapter for 9402X/9406X/9410X .. 49.99
971 200w HF portable ant tuner w/meter .. 99.99
1770A 10m dipole for 9410X 39.99
4110 Portable AC power supply 49.99
4114 Rechargeable power pack 69.99

ACCESSORIES

1306 6v 300ma adapter ..... $ 14.99
1312 12vdc 300ma adapter, 2.5mm plug 14.99
1312D 12vdc 500ma adapter, 2.1mm plug .. 14.99
1315 12vdc 500ma adapter .....D 14.99
1316 12vdc 1.5A adapter 19.99
15 HamGear belt loop radio holder 14.99
18 HamGear chest harness/cargo pocket 29.99
92AA01 1300ma AA NiMH cell .....each 2.99
92AA10 10-pack 1300ma AA NiMH cells 24.99
201 1.5-250 MHz dip meter 109.99
202B RF noise bridge 59.99
203 160-10m bandswitched dip meter .....D 49.99
204B HF Antenna bridge 79.99
206 Antenna current probe .....D 39.99
207 160-10m SWR analyzer 79.99
208 2m SWR analyzer 79.99
209 1.8-170 MHz SWR analyzer 129.99
212 MatchMaker tune up device 79.99
219B SWR analyzer, 440 MHz/N/SO-239 adapt 89.99
224 2m FM signal analyzer 149.99
249B 1.8-170 MHz SWR analy/LCD counter .. 219.99
259B 1.8-170 MHz SWR analy/RF res meter . 239.99
269 1.8-170+440 MHz SWR analy/RF res mtr 319.99
29C Carrying case w/window; 209/249B/259B 24.99
39C Carrying case w/window; 269 ..... 24.99
66 1.8-30/30-170 dip coils; 209/249B/259B 19.99
92AA10 10-pack 1300ma AA NiMH cells ... 24.99
98 Package of 39C/66/1315 for 269 ..... 54.99
98B Pack of 92AA10/39C/66/1315 for 269 .. 77.99
99 Pack of 29C/66/1315; 209/249B/259B . 54.99
99B Pack; 92AA10/29C/66/1315; 209/249B/259B 77.99
99C Pack - 92AA10/1315; 209/249B/259B/269 34.99
731 RFI filter for SWR analyzer 89.99
1312D 12vdc 500ma ps for SWR analyzers 14.99
270 Guardian Angel 400w PEP lightning protect 29.99
97 Gas tube plug for 270 ..... 9.99
281 ClearTone communications speaker 12.99
285W(CC) Mini spkr/mic; Ali credit card HTs D 9.99
288I Headset/mic; Icom/ADI/Sta/RS/older Yae 24.99
288K Headset/mic for Kenwood 24.99

MFJ - continued

AES Price

288Y Headset/mic; Ico Q7/Yae FT10/50/VX1 . 24.99
291K Earphone for Kenwood spkr/mic .....D 1.99
292I Earph/mic; Ico/older Yae/compatibles .. 17.99
292Y Earphone/mic; Ico Q7/Yae FT10/50/VX1 17.99
293I Rubber flex earloop earbud/mic; Icom .. 24.99
293K Rubber flex earloop earbud/mic; Kenwood 24.99
293Y Rubber flex earloop earbud/mic; Yaesu 24.99
295I Mini spkr/mic; Icom & compatible HT ... 15.99
295K Mini spkr/mic; Kenwood & compatible HT 15.99
295Y Mini spkr/mic; Ico Q7/Yae FT10/50/VX1 15.99
297 Desk mic with flexible boom 69.99
5082 Open end - 8-pin mic cable for 297 . 9.99
5268 Open end - mod phone plug cbl; 297 9.99
5397I Cable/8-pin for 297; Icom HF 15.99
5397K Cable/8-pin for 297; Kenwood HF ... 15.99
5397Y Cable/8-pin for 297; Yaesu HF 15.99
5397MI Cable/modular for 297; Icom VHF .....D 8.99
5397MX Cable/modular for 297; Icom/Kenwood 15.99
5397MY Cable/modular for 297; Yaesu 15.99
310 BNC HT antenna window mount clip 14.99
341M 17' antenna cable; NMO 19.99
341S 17' antenna cable; SO-239 ..... 19.99
382 Deluxe amplified communications spkr . 39.99
384 Dlx amp spkr w/speech control knob 29.99
1306 6v 300ma adapter for 384 only 14.99
388 Cyber Ear 12db ear amplifier 29.99
392B Deluxe communication headphones 19.99
394 Boom mic/single headphone .....D 54.99
5396I Adapter; 394/396 with Ico Xcvr .....D 6.99
5396K Adapter; 394/396 with Ken Xcvr ...D 6.99
5396Y Adapter; 394/396 with Yae Xcvr ...D 6.99
414 Professional Morse Tutor w/LCD 189.99
417 Code Tutor with QSO 59.99
418 Code Tutor with LCD display 79.99
434 Deluxe Voice Memory Keyer 169.99
73 Remote control head w/cable for 434 ... 29.99
461 Pocket size Morse code reader 79.99
5161 DB-9 PC serial port cable 14.99
5162 Cable for radio external speaker 5.99
462B RTTY/ASCII/CW/AMTOR Rcvr multi-reader 169.99
5162 Cable for radio external speaker 5.99
464 CW reader w/built-in keyer 169.99
550 Hand key 7.99
552 CW interface for 2m HT .....Δ 19.99
554 Deluxe CW practice oscillator 79.99
557 Code oscillator w/key 29.99
616 Speech intelligibility enhancer 159.99
1316 12vdc 1.5A adapter 19.99
281 ClearTone speaker (requires 2) 12.99
392B Deluxe communication headphones . 19.99
631 Trickle wall charger; NiMH/nicad AA 9.99
632 Rapid charger; NiMH/nicad AA/AAA .....D 19.99
633 Rapid charger; NiMH/nicad AA/AAA/9V .. 24.99
10-BCI-2 Charger cup; Icom BP-131/132 ...Δ .99
10-BCI-3 Charger cup; Icom BP-173/180 ..Δ .99
10-BCY-2 Cgr cup;Yae FNB10/11/12/17/27 ...Δ .99
641-Y3 Battery charger;Yaesu FNB-31/33 ..Δ 9.99
10-BCY-3 Charger cup; Yae FNB-31/33 ..Δ .99
662 Simplex pocket repeater 79.99
701 Toroid RFI filters .....pack of 4 14.99
704 1kw low-pass filter 49.99
711 High pass filter 24.99
762 81db 170MHz BNC attenuator 69.99
801 Super compact field strength meter 19.99
802 Bipolar field strength meter 39.99
802R Field strength remote meter 24.99
802X Field strength/remote meter combo 59.99
805 RFI current detector meter 79.99
850 AC line voltage monitor 19.99
852 Power line noise current meter 89.99
854 HF RF current meter 89.99
886 1MHz - 3GHz Pocket frequency counter .. 109.99

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

MFJ - continued

AES Price

890 DX beacon monitor 99.99
912 W9INN remote balun ...
916 2m/440 duplexer ...
931 Artificial ground unit ...
1025 Noise canceling antenna ...
1026 Deluxe noise canceling unit w/antenna 169.99
1046 1.6-33MHz receiver passive preselector 89.99
1048 1.6-33MHz Xcvr passive preselector 109.99
1112 Multiple DC outlet 34.99
1116 Dlx multiple DC outlet 49.99
1117 High current multiple DC outlet 54.99
1118 Dlx high current multiple DC outlet 74.99
1213 Interface for JVFAX/HamComm 49.99
1262 Microphone switch; 8-pin round 79.99
1268 IBM PC memory keyer .....Δ .99
1273B Basic soundcard interface/soft; 8P-R 59.99
1273BM Basic soundcard interface/soft; 8P-M 59.99
1275 Soundcard/rig interface/software; 8P-R 99.99
1275M Soundcard/rig interface/software; 8P-M 99.99
1279 Super soundcard interface/soft; 8P-R ..
1279M Super soundcard interface/soft; 8P-M 129.99
1281 IBM Easy-DX logging program .....D 6.99
1292 Video digitizer for IBM .....Δ 9.99
1680Y Windows software package; Yaesu ..D 4.99
1682 Packet Windows software .....D 2.99
1683I Rig Windows software for Icom .....D 2.99
1683K Rig Windows software for Kenwood .D 2.99
1700B Combination ant/xmtr switch 79.99
1701 6-position coax switch 49.99
1702C 2-pos coax switch/lightning protect .. 24.99
1702CN 2-pos 1.1GHz N switch/lightning protect 34.99
1704 4-pos 500 MHz switch/lightning protect 64.99
1704N 4-position type N switch 74.99
4035MV Dlx 30A adjustable ps, 35A surge ... 139.99
4103 Switching power supply for Yaesu FT-817 39.99
4125MV MightyLite 22A 3.5 lb switch ps, 25A surge 99.99
4225MV MightyLite 22A switching ps, 25A surge 139.99
4245MV MightyLite 40A switching ps, 45A surge

MG Electronics

HFS-1 10w mobile spkr, 3.5mm plug .....D

MAGELLAN (MAG)

GPS-310 12 ch GPS receiver
GPS-315 12 ch GPS receiver
GPS-320 12 ch GPS receiver 169.99
730275 External power cable w/cig adapter 17.99
730277 PC cable/cig adapter 39.99
00-19044-000 Lo prof ext ant; Tracker/ColorTrak Δ 39.99
00-19060-000 Pwr/data cbl; Tracker/ColorTrak Δ 6.99
00-19067-000 PC cbl/cig adapt; Tracker/ColorTrak Δ 14.99
MAP-330 12ch GPS receiver/8mb base map . 249.99
730275 External power cable w/cig adapter 17.99
730277 PC cable/cig adaper 39.99
980611 MapSend Topo CD-ROM 99.99
980613-01 MapSend Streets & Destinations CD 99.99
Meridian GPS GPS with 2MB base map 219.99
$50 rebate w/980611 or 980613-01 from Meade thru 12/31/02
Meridian Gold GPS with 16MB base map 299.99
$50 rebate w/980611 or 980613-01 from Meade thru 12/31/02
Meridian Platinum GPS/16MB/compass/barometric 349.99
$50 rebate w/980611 or 980613-01 from Meade thru 12/31/02
Meridian XL GPS/plotter/detachable ant/case D 99.99
980611 MapSend Topo CD-ROM 99.99
980613-01 MapSend Streets & Destinations CD 99.99
SporTrak GPS receiver w/1MB memory 169.99
SporTrak Map GPS w/2MB mem/4MB map mem 199.99
$50 rebate w/980611 or 980613-01 from Meade thru 12/31/02
SporTrak Pro GPS w/9MB mem/23MB map mem 269.99
$50 rebate w/980611 or 980613-01 from Meade thru 12/31/02
980611 MapSend Topo CD-ROM 99.99
980613-01 MapSend Streets & Destinations CD 99.99

AES Price

MAHA (MAH)

9V 8.4v 170ma 9v size NiMH batt cell .....ea $ 8.99
AAA-T 1.2v 650ma AAA size NiMH batt cell ea 2.99
AA F2 1.2v 1400ma AA NiMH batt w/tabs D,ea 2.99
4-AA-180 4-pack 1.2v 1800ma AA NiMH cells 19.99
MH-2A4 Slow charger for 4 max AA NiMH ...D 3.99
MH-C174S Reg chgr; 1-4 AA/AAA NiMH/NiCD
MH-C204F Quick chg/condi 2/4 AA/AAA NiMH/NiCD 24.99
MHS-DC-124 Cig adapter; MH-C174S/C204F
MH-BP-7 1000ma 13.2v Icom nickel hydride
MH-BP-8 1200ma 8.4v Icom nickel hydride ..
MH-BP-8H 1800ma 8.4v Icom nickel hydride 69.99
MH-BP-83 1300ma 7.2v Icom nickel hydride 49.99
MH-BP-132B 1300ma 12v Ico blk nick hyd/mic 59.99
MH-BP-132G 1300ma 12v Ico gray nick hyd/mic 59.99
MH-BP-173 650ma 9.6v Icom nickel hydride 69.99
MH-BP-180 1000ma 7.2v Icom nickel hydride . 49.99
MH-BP-195M 1350ma 9.6v Icom nick hydride
MH-BP-190 700ma 6v Icom nick hydride/clip . 55.99
MH-BP-200 650ma 9.6v Icom nick hydride/clip 59.99
MH-CNB-152 1000ma 12v Sta nickel hydride 59.99
MH-CNB-153 1300ma 7.2v Sta nickel hydride 49.99
MH-FNB-12 1000ma 12v Yaesu nickel hydride 59.99
MH-FNB-17 1000ma 7.2v Yaesu nickel hydride 49.99
MH-FNB-27 900ma 12v Yaesu nickel hydride
MH-FNB-31 650ma 4.8v Yaesu nickel hydride 49.99
MH-FNB-38 650ma 9.6v Yaesu nickel hydride 59.99
MH-FNB-40H 600ma 7.2v Yae nick hyd/spg clip
MH-FNB-41 1000ma 9.6v Yae nick hyd/spg clip 55.99
MH-FNB-V47 1300ma 7.2v Yae nick hyd/spg clip 69.99
MH-FNB-V57 1500ma 7.2v Yaesu nickel hydride 49.99
MH-FNB-72 1700ma 9.6v Yaesu nickel hydride 59.99
MH-PB-8 1300ma 12v Kenwood nickel hydride 62.99
MH-PB-17 1300ma 12v Kenwood nickel hydride 69.99
MH-PB-18 1300ma 7.2v Ken nick hyd; wall chgr only 49.99
MH-PB-32 1300ma 6v Kenwood nickel hydride 47.99
MH-PB-34 1000ma 9.6v Kenwood nickel hydride 57.99
MH-PB-39 1050 ma 9.6v Ken nickel hyd/clip ... 59.99
MH-PB-35H 1800ma 6v Ken nickel hyd/clip 59.99
MH-C777 Univ chg/conditioner/cig cord; nicad/nimh 49.99
MHS-CW4 Clip-leads for external charging
MH-C777 Plus Univ chg/analyzer/cig cord; nicad/nimh D
MH-C777 Plus II Univ chg/analyzer/cig cord; nicad/nimh
MH-C808 Univ drop-in rapid chgr/cond; nicad/nimh
.. MHS-C808U External charger pin shell
MHS-C801 Cup: TZ/W32/TH22/78/FT10/50
MHS-C802 Cup: IC02AT/TH78/FT470/530 ..
MHS-C803 Cup: Kenwood TH-D7A/G71A
MHS-C804 Cup: Icom IC-T8A/T81A .....
MHS-C805 Cup: Yaesu FT-11/41/51R .....
MHS-C806 Cup: All 195/580/F1/G5/V5/etc
MHS-DC-777 Cig lighter cord .....
MH-101-I1 Cgr/cond 5/160/174/131/2Mah 1328/C D
MH-101-Y1 Cgr/cond 10/11/12/1725/27Mah 1277 D
MH-101-Y2 Cgr/Yae FN331/38/Mah MH-NB58 D
MH-900K 500mw spkr/mic w/clip; Kenwood .
MH-800Y 500mw spkr/mic; Yae FT50/VX1R ..
MH-A101 5/35w 2m FM amplifier ..... D
MH-A102 5/35w 2m FM/SSB amp/preamp .D
MH-A103 5/50w 2m FM/SSB amp/preamp .D
MH-A201 5/45w 2m/6/35w 440 FM amp ..D
MH-A301 5/50w 2m HF dock boost amp/pre D
MHS-I1 Ico 2GA/2/2/32 adapt; A301/302 D
MHS-I2 Ico 2GAT/72 adapter; A301/302 .D
MHS-I3 Ico 2GX/7AV21/T adapt; A301/302 D
MHS-I4 Ico W32/31/T/22 adapt; A301/302 D
MHS-I5 Ico T5/7/T81A adapter; A301/302 .D
MHS-K1 Ken 25/26/75/77 adapt; A301/302 D
MHS-K2 Ken TH22/79 adapter; A301/302 D

Maha - continued

AES Price

MHS-K3 Ken G71/D7A adapt; A301/302 D 6.99
MHS-S1 AOR/Standard adapt; A301/302 ..D 4.99
MHS-Y1 Yae 23/411e/470 adapt; A301/302 D 2.99
MHS-Y2 Yae 26/415/530 adapt; A301/302 D 4.99
MHS-Y3 Yae FT11/41/51 adapt; A301/302 D 4.99
MHS-Y4 Yae FT10/40/50 adapt; A301/302 D 4.99
MH-VOX-K Deluxe VOX spkr/mic; Kenwood ..D 4.99

MALDOL (MAL)

AN-14 20m telescoping ant w/BNC; FT-817 ... $ 45.99
AN-28 10m telescoping ant w/BNC; FT-817 ... 45.99
AN-C7 40m loading coil only w/BNC; FT-817 33.99
AN-C14 20m loading coil only w/BNC; FT-817 33.99
AN-C21 15m loading coil only w/BNC; FT-817 33.99
AN-C28 10m loading coil only w/BNC; FT-817 33.99
AN-R Telescoping whip for AN-C7/14/21/28 17.99
AN-510R 6/2m/440 37" BNC tele whip; FT-817/HT 59.99
AN-510R/SMA 6/2m/440 37" SMA tele whip 59.99
AS-20 2m/440 8.5" superflex SMA antenna ... 29.99
AS-25 2m/440 1" SMA antenna 19.99
AS-30 2m/440 15" 0/2.15 superflex SMA ant 29.99
EM-620 Small trunk/hatch/van door lip mt .. 25.99
EX-104B 2m/440 b ... 41.99
EX-105BNMO 2m/440 blk 5" NMO 41.99
EX-107RB 2m/440 black 2 0" 52.99
EX-107RBNMO 2m/440 blk 52.99
FVS-58 Dlx 2 step 16' 9" cable w/ mr connects 39.99
MA-209 2m/440 3" BNC duck 23.99
10 3" SMA duck 23.99
MM-510 6m/2m/440 0/0/3 Adb 20.75" SMA duck 37.99
MM-610 2m/220/440 0/1.8/3.2db 14" SMA duck 49.99
MR-30H Motorized trk lip/hatch/van door mt 104.99
MSG-1060C 2m/440 2.15/5.5db 39" mobile . 62.99
MSG-1160C 2m/440 3.5/6db 42" mobile ant 72.99
PR-2120 2m/440 6/8.5db 85" mobile ant 99.99
PR-2120NMO 2m/440 6/8.5db 85" NMO mob 99.99
PWM-1 Large trunk/hatch/van door lip mt . 29.99
SMA-140B 2m 4.1db 56" mobile antenna 54.99
2m 4.1db 56" NMO mob ant . 54.99
2m/440 blk 1.5/7.5db 59" mob . 74.99
SMA-150BNMO 2m/440 blk 4.5/7.5db 59" NMO 74.99

MAXON (MAX)

MA-4B Earpiece/boomset for FRS-114 $ .19
MX-49FX 5 ch 49 MHz co ... 49.99
MX 49HX 5 ch 49 MHz boom mic/head set Xcvr .. 49.99
MX-49SX 49 MHz boom mic/head set Xcvr 29.99

MEADE (MEA)

07PC ds-01 ETX-70AT Astro tele scope w/tripod $319.99
07025 #882 Extra std tripod special order 99.99
07137 1.25" 5mm Plossl lens 59.99
07139 1.25" 18mm WA lens .....
07220 #933 45° 1.25" erecting prism .....
07278 #670 dew shield .....
3514-03-04 ETX-90EC Astro telescope 495.99
Super Plossl Eyepc Set $99 from Meade thru 10/31/02; USA
0515-03-01 ETX-125EC Astro telescope 895.99
Super Plossl Eyepc Set $99 from Meade thru 10/31/02; USA
07436 #497 Autostar controller ETX-90/125EC 149.99
20061 DS-60EC 60mm refractor telescope .D 169.99
07217 #0284 1.25" erecting prism; DS60/70/90 59.99
494 #494 Autostar controller; DS-EC-series † 49.99
07179-02 1.25" 6.4mm super Plossl lens . 89.99
07173-02 1.25" 15mm super Plossl lens 89.99
07203 #126 1.25" 2x short-focus Barlow lens 59.99
20117 DS-2114ATS 114mm reflector telescope 399.99
20201 NGC 60 60mm refractor telescope 199.99
07137 1.25" 5mm Plossl lens 59.99
07139 1.25" 18mm WA lens 69.99
07522 #088 broadband nebula filter .....Δ
CVR-1001 8x22 binoculars/digital camera 99.99

AES Price

MIDLAND (MID)

22-410	Speaker/mic for 75-510XLB .....D	$ 4.99
22-430	Throat mic/ear/PTT box; 75-510XLB .... D	4.99
23-505	1.5-150MHz dual meter SWR/power .	19.99
74-200	SAME weather/hazard alert radio/ps	49.99
74-210	FM/SAME weather/hazard alert radio/ps D	59.99
WR-30	FM/SAME weather/hazard alert radio/ps	59.99

Miracle Antenna (MIA)

Miracle Whip	3.5-450MHz 57" QRP ant/tuner	$149.99

MIRAGE (MIR)

A-1015G	50-52 FM/SSB 10/150w amp/preamp	$349.99
B-34	2m FM 2/35w amplifier	69.99
B-34G	2m FM/SSB 3.5/35w amp/preamp	89.99
B-215G	2m FM/SSB 2/150w amp/preamp ..D	299.99
B-310G	2m FM/SSB 4/100w amp/preamp	179.99
B-320G	2m FM/SSB 50/200w amp/preamp ..	429.99
B-510G	Dlx 100w 2m FM amp for HT/mobile D	209.99
B-1016G	2m FM/SSB 10/160w amp/preamp D	339.99
B-1018G	2m FM/SSB 10/160w amp/preamp	369.99
B-2518G	2m FM/SSB 25/160w amp/preamp	299.99
B-2530G	2m FM/SSB 25/300w amp/preamp	689.99
B-5018G	2m FM/SSB 50/160w amp/preamp	299.99
B-5030G	2m FM/SSB 50/300w amp/preamp ..	669.99
BD-35	2m/440 4/45//4/35w HT amp	149.99
BD-38/BD-38G	2m/440 4/80w HT amp/preamp	279.99
B-24G	5/50w 2m HT dock boost amp/pre	114.99
BD-25	5/45//5/35w 2m/440 HT dock boost	164.99
MI-1	Ico 2G/02/2/32 adapter; B24G/BD25	9.99
MI-2	Ico 2SAT/W2 adapter; B24G/BD25	9.99
MI-3	Ico 2GXAT/W21AT adapt; B24G/BD25	9.99
MI-4	Ico W32/31/T7/22 adapt; B24G/BD25	9.99
MK-1	Ken 25/26/75/77 adapt; B24G/BD25	9.99
MK-2	Ken 22/79 adapter; B24G/BD25	9.99
MS-1	ADI/Standard adapter; B24G/BD25 ..	9.99
MY-1	Yae 23/411E/470 adapt; B24G/BD25 .	9.99
MY-2	Yae 26/415/530 adapt; B24G/BD25 .	9.99
MY-3	Yae FT11/41/51 adapt; B24G/BD25 ..	9.99
MY-4	Yae FT10/40/50 adapt; B24G/BD25 ..	9.99
C-22G	220 FM/SSB 2/20w amp/preamp	154.99
C-211G	220 FM/SSB 2/110w amp/preamp	329.99
C-1012G	220 FM/SSB 10/120w amp/preamp	329.99
C-1022G	220 FM/SSB 10/220w amp/preamp	689.99
C-2512G	220 FM/SSB 25/120w amp/preamp	309.99
C-5012G	220 FM/SSB 50/120w amp/preamp Δ	229.99
C-5022G	220 FM/SSB 50/200w amp/preamp Δ	449.99
D-15N	430 FM/SSB/ATV 2/15w type N amp ...	169.99
D-26N	440 FM/SSB 2/60w type N amplifier ..	259.99
D-1010N	440 FM/SSB 10/100w type N amp .	379.99
D-3010N	440 FM/SSB 30/100w type N amp .	349.99
D-1010-ATVN	430 ATV 10/100w type N amp .	399.99
RC-1*	Remote control head w/18' cable	45.99
	*Not for B-23/C-22/D-26	
RC-2	Rem ctl head/cable; B-XX18G	45.99

The following Repeater Amplifiers are Special Order. Specify SO-239 or type N connectors

A-1015NR	6m FM 2/80w type N amplifier	$549.99
A-1015R	6m FM 2/80w SO-239 amplifier	529.99
B-1018NR	2m FM 4/120w type N amplifier ..	589.99
B-1018R	2m FM 4/120w SO-239 amplifier ...	569.99
B-2518NR	2m FM 12/120w type N amplifier	549.99
B-2518R	2m FM 12/120w SO-239 amplifier .	529.99
C-211NR	220 FM .5/80w type N amplifier	619.99
C-211R	220 FM .5/80w SO-239 amplifier	599.99
C-1012NR	220 FM 5/90w type N amplifier ...	619.99
C-1012R	220 FM 5/90w SO-239 amplifier	599.99
C-2512NR	220 FM 15/90w type N amplifier .	589.99
C-2512R	220 FM 15/90w SO-239 amplifier ..	569.99
D-1010NR	440 FM 4/80w type N amplifier ...	629.99

Mirage - continued

AES Price

D-3010NR	440 FM 12/80w type N amplifier .	599.99
D-1010-ATVN-R	430 ATV 4/80w type N amp .	629.99

PREAMPS

KP-1/10M	10m in shack preamp	$129.99
KP-1/6M	6m in shack preamp	129.99
KP-1/2M	2m in shack preamp	129.99
KP-1/220	220 in shack preamp	129.99
KP-1/440	440 in shack preamp	129.99
KP-2/10M	10m mast mount preamp .....Δ	139.99
KP-2/6M	6m mast mount preamp	179.99
KP-2/2M	2m mast mount preamp	179.99
KP-2/220	220 mast mount preamp	179.99
KP-2/440	440 mast mount preamp	179.99

WATTMETERS

MP-1	160-10m 25/200/2kw PEP wattmeter .	$219.99
MP-2	6 & 2m 50/500/1.5kw PEP wattmeter .	219.99
MP-3	420-450 5/50/150w PEP wattmeter	249.99

MOTOROLA (MOT)

53543	Camouflage TalkAbout 250 FRS .....D	$ 59.99
50226	Headset w/microphone	14.99
53834	Rosewood T5200 Alkaline FRS	39.99
56360	Black T6220 Alkaline FRS	49.99
53725	Headset w/microphone	14.99
53544	2w grey TalkAbout Distance GMRS ...D	149.99
53547	2w grey TalkAbout Distance DPS GMRS D	169.99
50226	Headset w/microphone	14.99

NCG (NCG)

Power Pocket	12v 2AH lead acid belt batt/cgr	$ 66.99

Night Owl Optics (NOO)

NOCC-3	3.1x42 night vision scope w/illuminator	$199.99
NOCA-42	Camera adapter	49.99
NOLD-20	Lens doubler	49.99
NODS-5	5x48 night vision scope w/illuminator	299.99
NOCA-42	Camera adapter	49.99
NOXG-2	3x G2 night vision scope w/illuminator	999.99
NOCA-42	Camera adapter	49.99

NORCOMM (NOR)

NC-101	Tunable CTCSS encoder	$ 21.99
NC-104	Programmable CTCSS encoder	26.99
NC-106	Prog CTCSS encoder/decoder	62.99
NC-401	Sub-miniature DTMF decoder	62.99

Oregon Scientific (ORE)

BA-812E	The weather clock .....D	$ 19.99
EMR-812A	Wireless thermometer	29.99
THR-138	Extra wireless sensor; EMR-812A	24.99
JMR-828	Jumbo atomic clock w/rem temp ..D	69.99
PE-319	Pedometer with personal security	19.99
RGR-122	Wireless rain gauge w/LCD console	59.99
RM-116E	Exactset radio controlled clock	29.99
WMR-112A	Wireless weather station	199.99
WM-918	Dlx weather station w/rain gauge ...	229.99
WMR-968	Dlx wireless WX stn w/rain gauge .	399.99
WR-102	Port WX/hazard radio/SAME alert	49.99
WR-196T	AM/FM/SAME WX alert clock radio .	69.99

OUTBACKER (OUT)

OB-8	75-10m 300w PEP 6' 8-band mobile ant	$279.99
OB-8HP	75-10m 500w PEP 6' 8-band mob ant	299.99
OB-S8	75-10m 300w PEP split ant/storage bag	299.99
OB-8TRI	75-10m 300w PEP 3pc 6' port ant/bag	329.99
Joey	80-2m 20w antenna w/counterpoise	249.99
(ALP) **MicroMount**	Tripod system for Joey ...	49.99
OB-M	75/40/20/17/10m/HF marine 300w PEP 6'	429.99
Perth	75-10m 150w PEP 7.5' mobile ant	289.99
Perth Plus	75-10m+6m/2m 150w PEP 6' mob ant	299.99
Stealth Plus	75-10m+6/2m 100w PEP 4' ant	269.99
Outreach	160-10m 300w PEP 12' antenna ...	399.99

Outbacker - continued

AES Price

Outreach 500	80-6m 600w PEP 12' antenna	439.99
(ALP) **Outpost**	Base tripod mtg sys for mob ant	199.99
OB-SB	⅜-24 spring and ½" hole base	99.99
Diamond K-400-3/8C	⅜-24 trunk mt, 6' coax	69.99
Diamond C-110	10' ext cable; K-400-3/8C	14.99

PACCOMM (PAC)

APRS port **switch**	.....D	$ 19.99
HandiPacket	Small TNC for handhelds	229.99
PicoPacket TNC, **128K** RAM	.....	159.99
PicoPacket **dual** serial port TNC, **128K** RAM ...		209.99
Spirit-2	Standard high performance controller	249.99
Tiny-2 Mk-2	Multi-purpose TNC	159.99

Palomar Engineers (PAL)

MSB-3	Magnetic switch receive balun .....D	$ 19.99
PT-340	Tuner-Tuner (use with ant tuner)	99.99
RFI-4	RF interference kit	25.99
SMB-5	SmartBridge prog; AT computers .....D	.29
VLF-A	VLF converter; 10-500 KHz to 80m	99.99
VLF-S	VLF conv; 10-500 KHz to 4-4.5 MHz	99.99

PAR (PAR)

144-AUX	2m 4 effective el add-on, 7 db; 50-EL3 Δ	$ 6.99
OA-28	10m horizontal omni antenna	74.99
OA-50	6m horizontal omni antenna	63.99
SK-50	Stacking harness for OA-50	36.99
OA-144	2m horizontal omni antenna	54.99
SK-144	Stacking harness for OA-144	34.99
OA-222	220 horizontal omni antenna	54.99
SK-222	Stacking harness for OA-222 .....Δ	14.99
OA-432	430 horizontal omni antenna	54.99
SK-432	Type N stacking harness; OA-432 ..	54.99
UHFDN450	440 dual band notch filter	62.99
VHFDN152	2m dual band notch filter	62.99
VHFDN152HT	2m dual band HT notch filter ..	68.99
VHFTN152-158	2m dual band+pager notch filt	82.99
UHF-12	12" RG58/silver/gold/tef PL259s ..	9.99

PENETROX (PEN)

Penetrox A	4 oz tube for antennas	$ 12.99

POLICE CALL (POL)

Vol 3/4 2003	IL/IN/KY/MI/OH/WI book/48 state CD	$ 19.99
Vol 5/8 2003	AZ/CO/IA/NV/others book/48 state CD	19.99

POLYPHASER (PLY)

LIGHTNING PROTECTION

IS-50NX-C2	125-1000 375/125/50w N flange	$ 61.99
IS-50UX-C0	1.5-400 2kw/375/125w flange mt	61.99
IS-50UX-C1	50-700MHz 375/125w flange mt	61.99
IS-B50LN-C2	125-1000 375/125/50w N bulkhead	64.99
IS-B50LU-C0	1.5-400 2kw/375/125w bulkhead	64.99
IS-B50LU-C1	50-700 375/125w bulkhead mt	64.99
IS-IE50LU-C0	1.5-400 dlx 2kw/375/125w bulk	129.99
IS-IE50LU-C1	50-500 dlx 375/125w bulkhead Δ	59.99
IS-IE50LN-C1	50-700 dlx 375/125w N bulkhead	117.99
BF Adapter	Bulkhead to flange mt adapter .	9.99
FB Adapter	Flange to bulkhead mt adapter .	11.99
IS-PLDO-120-15A	120v 15A power protector	172.99
IS-PLDO-120-20A	120v 20A power protector	215.99
IS-RCT	8-wire rotor control protector	54.99
J-1	½" to 1⅓" bronze transition clamp	8.99
J-2	1½" to 2¼" bronze transition clamp ..	12.99
IS-SPTL	Single phone line protector	57.99
CS112-25	25' 1½" copper strap	25.99
CS112-50	50' 1½" copper strap	51.99
CS112-75	75' 1½" copper strap	75.99
CS112-100	100' 1½" copper strap	99.99
CS3-25	25' 3" copper strap	51.99
CS3-50	50' 3" copper strap	99.99
CS3-75	75' 3" copper strap	149.99

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

Polyphaser - continued

	AES Price
CS3-100 100' 3" copper strap	197.99
CU-SPGP Copper single point ground panel	69.99
TK-2 1½" strap to Rohn twr corrosion free clamp	5.99
TK-3 1½" strap-2¼" to 3¾" mast corr free clamp	8.99
1C-112S #6-#1 wire to 1½" strap clamp bond	10.99
58R-112S 1½" strap to ⅝" gnd rod clamp bond	12.99
MSC-3 Junc; 2+ 1½" or 3" strap clamp bond	10.99
UNI-KIT 2CT Gnd kit; coax to alum/tin/galv	29.99
UNI-KIT 2TC Gnd kit; galv twr leg to copper	32.99
UNI-KIT 2CC Ground kit; coax to copper	28.99
CCK Copper cleaning kit; 4 oz can, brush	27.99
GLEP Lightning and EMP Protection book	20.00

PREMIER (PRE)

AL-800 2m/440 34" BNC rubber duck ant	$ 29.99
RD-2 2m/440 2" BNC duck	14.99
RD-2SMA 2m/440 2" SMA duck	15.99
RD-8 2m/440/900 6.5" BNC duck	14.99
RD-9 2m/440/900 7" BNC duck	18.99
RD-9SMA 2m/440/900 7" SMA duck	20.99
RD-78 2m/440/900 15" BNC whip	19.99
RD-98 2m/440 17" BNC whip	24.99
RD-98SMA 2m/440 17" SMA whip	27.99
MC-2 Super suction & mag mt; NMO/UHF ..D	14.99
SPM-100 Spkr/mic; ADI/Alinco/Icom/Yaesu	21.99
SPM-101 Spkr/mic for Kenwood	21.99
SPM-102 Spkr/mic; Yaesu FT-50R/VX-1R/5R	21.99
SPM-301 Spkr/mic/PTT lock/volume; Ken ...Δ	6.99
SPM-400A Boom/mic; ADI/Alinco/Icom/Yaesu	34.99
SPM-400L Boom/mic/L; Icom/Yaesu ....D	9.99
SPM-402A Boom mic; Yae FT-50R/VX-1R/5R	34.99
SPM-500 Throat/mic/earph; ADI/Ali/Ico/Yae	19.99
PCA-IVHF Cable/modular; Icom VHF ....Δ	4.99
PCA-KHF Cable/8-pin; Alinco/Kenwood HF ...Δ	4.99
PCA-KVHF Cable/modular; ADI/Ali/Ken VHF ...Δ	4.99
PCA-YHF Cable/8-pin; Yaesu HF ....Δ	4.99
PCA-YVHF Cable/modular; Yaesu VHF ....Δ	2.99
PCA-Y100 Cable; Yaesu FT90/100/2600 ...Δ	2.99

PRO AM by VALOR (VAL)

VHF/UHF ANTENNAS ONLY (No Mounts)

M0144-440 2m/440 antenna only	$ 21.99
PAQA 136-515 MHz ¼ wave antenna only	8.99
PHB-144 2m ⅝ wave 3 db antenna only	31.99

MOUNTS ONLY FOR ABOVE ANTENNAS

PAM Low profile magnet mount w/coax	$ 24.99
PAMB Black low profile mag mount w/coax	24.99
PAN38 ⅜-24 antenna to NMO mt adapter	14.99
PAS ¾" surface mount w/coax	19.99
PASMO ¾" surface mt only (no coax)	7.99
PAS38 ⅜" surface mount w/coax	19.99
PAT-2 No hole trunk mount w/coax	19.99
PAT-2B Black no hole trunk mount w/coax	19.99

OTHER VHF/UHF ANTENNAS & MOUNTS

100ADN SO-239 horizontal mirror mt	$ 10.99
101ADN HD alum mirror mt w/SO-239	10.99
105AD Hvy duty ⅜" mount assembly	6.99
105HD Heavy duty mount assembly	3.99
301 4" low profile ⅜-24 magnet mt w/coax	25.99
401 5" low profile ⅜-24 magnet mt w/coax	19.99
BNC-SC-RS Suction cup extension; ducks	22.99
DAK Mt for 2 vert ants or horizontal dipole	13.99
GM-144 2m 2.5db on glass antenna	29.99
GM-270 2m/440 2.6/6.3db on glass antenna	59.99
TGMKD On glass replacement mtg kit	8.99
MM-3401 Maxi-mag mt ⅜-24 kit (3-5" mags)	59.99
MM-3401B Blk maxi-mag mt ⅜-24 kit (3-5" mags)	59.99
SS-100MOT 3-way NMO mirror mt w/coax	23.99
CX-144 2m ⅝ wave 3db ⅜-24 whip	17.99
MM-270B 2m/440 mini mag mt ant w/BNC	19.99

Pro Am - continued

	AES Price
PM-144-440BN 2m/440 BNC mag mt ant	33.99
TGS 30-1200MHz on-glass scanner ant	39.99
VAA-002B 144-450 black ¼ wv mag mt ant	23.99
VAA-002BBN 144-450 black ¼ wv BNC mag ant	27.99
120 Sawtooth hump mt for mobile radios	7.99
D-270 2m/440 100w duplexer	39.99

MOBILE HF ANTENNAS (No Mounts)

AB-5 75/40/20/15/10m antenna	$119.99
PHF-160 160m 8' ⅜-24 whip	97.99
PHF-75 75m 8' ⅜-24 whip (4' coil, 4' whip)	29.99
PHF-40 40m 8' ⅜-24 whip (4' coil, 4' whip)	23.99
PHF-30 30m 8' ⅜-24 whip (4' coil, 4' whip)	23.99
PHF-20 20m 8' ⅜-24 whip (4' coil, 4' whip)	23.99
PHF-17 17m 8' ⅜-24 whip (4' coil, 4' whip)	23.99
PHF-15 15m 8' ⅜-24 whip (4' coil, 4' whip)	23.99
PHF-12 12m 8' ⅜-24 whip (4' coil, 4' whip)	23.99
PHF-10 10m 8' ⅜-24 whip (4' coil, 4' whip)	23.99
PHF-6 6m 58" ⅜-24 whip	23.99
103S Quick disconnect/5 twist lock connectors	24.99

QRZ (WAL)

Ham QRZ US & international calls plus programs	$ 29.99

QSL Card Holders (ART)

QSL Card Holders, pack of 3, 20 cards/holder	$ 18.99

RCA (RCA)

108 F-56 connector w/o-ring for TV coax	$ .49
AH-19 6' audio cable w/RCA plugs	2.99
AH-211 25' audio cable w/RCA plugs	6.99
ANT-1020 VHF TV/UHF TV/FM indoor antenna	19.99
RP-3752 AM/FM/CD stereo clock radio	69.99
TA-25 25db VHF/UHF TV/FM distribution amp	19.99
VH-84 6' audio/video cable w/gold RCA plugs	5.99

RF INQUIRY (RFI)

CF250E-UHF 250w 1.8-70 common mode filter	$ 89.99
CF5KV-UHF 5kw 1.8-70 common mode filter	124.99

RF PARTS (See Diamond)

Radio Am Callbook (RAC)

059332 2002 World Radio TV Handbook	$ 24.95
087638 Summer 02 N Am/Int CD-ROM callbook	49.99

RAMSEY (RAM)

AA-7 Active antenna kit	$ 28.99
AR-1 Aircraft receiver kit	29.99
CS-1 Crystal radio set kit ....D	19.99
CW-7 CMOS keyer kit	24.99
DF-1 Foxhound direction finder kit	59.99
FR-1 FM broadcast receiver kit	24.99
HR-20 20m receiver kit	29.99
HR-40 40m receiver kit	29.99
QRP-20 20m CW transmitter kit	29.99
QRP-40 40m CW transmitter kit	29.99
QRP-80 80m CW transmitter kit ....D	14.99
RFS-1 RF sensed switch kit	14.99
SCA-1 SCA decoder kit	27.99
SR-2 Shortwave receiver kit	29.99
TS-1 CW touch paddle switch kit	6.99
UT-5 Universal timer kit	8.99
VS-1 Voice activated switch kit	6.99

RANGER (RAN)

RCI-2950DX 10/12m 25w SSB/10w FM/AM/CW	$269.99
RCI-2970DX 10/12m 150w SSB/50w FM/AM/CW	399.99
RCI-5054DX 6m 25w SSB/10w FM/AM/CW	319.99

SGC (SGC)

04-01 SG-2000 150w 1.8-30 MHz 12v Xcvr	1599.99
04-11 Std SG-2000 rem head/bkt/20' cable	589.99
04-15 Remote mobile head/mem ch's only	449.99
51-82 Fan kit for continuous duty xmit	269.99

SGC - continued

	AES Price
04-10 SG-2000 Xcvr w/DSP/PowerTalk head	1849.99
04-23 SG-2000 Xcvr/DSP/PowerTalk remoted	2099.99
04-12 Remote kit w/swivel bkt & cable ..Δ	99.99
04-13 Remote kit w/5-way mt & cable ....D	199.99
04-22 PowerTalk remote head	799.99
52-32 Carbon telephone handset ....D	69.99
52-34 RS-232 interface; SG-2000 Xcvr	179.99
52-51 CA-1 High voltage feed wire .per ft.	.79
52-53 CA-230 Ant coupler cbl; custom per ft.	4.99
52-54 CA-2000 Rem head cbl; custom per ft.	4.99
53-04 PS-30 30A/40A peak unreg ps	389.99
53-05 PS-50 50A/70A peak unreg ps	419.99
52-61 PSC/12-1 12' ps cable, 1 plug	50.99
52-62 PSC/12-2 12' ps cable, 2 plugs	60.99
05-01 SG-2020 Mini 20w PEP QRP Xcvr/mic	675.99
05-02 SG-2020 Mini 20w PEP QRP Xcvr/mic/ADSP	795.99
54-22 SG-239 200w Smartuner	249.99
52-96 SG-500 1.8-24MHz 12v 500w PEP amp	1249.99
51-82 Fan kit for continuous duty xmit	269.99
54-14 SG-230 200w 1.8-30 MHz 12v Smartuner	489.99
54-61 25' extension cable	60.99
54-62 50' extension cable	90.99
54-63 SmartLock; tuners made after 9/1/93	59.99
54-15 SG-235 500w 1.8-30MHz 12v Smartuner	1169.99
54-17 SG-231 HF+6m 12v Smartuner	529.99
54-18 SG-237 100w PEP HF+6m mini Smartuner	359.99
54-19 SG-237 PCB only 100w PEP Smartuner	249.99
54-23 Stealth Kit SG-237 w/loop antenna	399.99
55-04 SG-103 1.8-30MHz 150w dipole	229.99
55-06 SG-104 2-28 MHz 90' 1kw dipole	629.99
55-27 SG-303 1.8-30 9' mobile whip & mt	449.99
55-67 Replacement whip for SG-303	249.99
55-28 SG-307 1.8-60 7' mobile whip & mt	449.99
55-47 QMS-2 Quick mt sys w/SG-230/303 whip	895.99
55-48 QMS-3 500w antenna system	2169.99
55-49 QMS-7 Quick mt sys w/SG-231/307 whip	1249.99
55-50 QMS-37 Quick mt sys/SG-237, less whip	549.99

SAMLEX (SAM)

SEC-1223 23A switching ps w/fan, 25A surge	$ 99.99

SANGEAN (SAN)

ATS-404 AM/FM/SW portable receiver w/case †	$ 79.99
ATS-505P AM/FM/SW portable receiver	129.99
ATS-606A AM/FM/shortwave portable receiver	149.99
ATS-818 AM/FM/shortwave portable receiver	179.99
ATS-818CS AM/FM/SW port Rcvr w/cassette	229.99
ATS-909 AM/FM/shortwave portable Rcvr ...†	249.99
DT-200V AM/FM/VHF TV sound dig port Rcvr	69.99

SEQUOIA (SEQ)

POCKET PC REF Pocket PC reference book	$ 14.99
POCKET REF Pocket reference book	12.99
WinRef 98-95 Windows pocket reference book	9.99

SHAKESPEARE (SHA)

4036-1H Hvy duty mirror mt w/coax adapter	$ 7.99
396-1 3 db, 5' VHF marine ant, less mount	59.99
5101 6 db, 8' VHF marine ant, less mount	49.99
5202 6db 8' VHF mar ant/chrome ferrule, less mt	69.99
5206-C Econo 8' VHF mar ant/chrome ferrule, no mt	39.99
495 White plastic lift & lay mount	16.99
4187 Stainless steel ratchet mount	36.99
420 3db, 5' VHF marine ant w/fold-down mt	59.99

SHURE (SHU)

526T Series II Dynamic amplified desk mic	$124.99
R96 Replacement cartridge	27.99

Smiley Antenna (SMI)

270A 2m/440 gain telescopic whip	$ 19.99
270A/SMA 2m/440 gain tele whip w/SMA	19.99
5/8 SLD-2 2m ⅝ Slim Duck rubber ant	17.99

Smiley - continued AES Price

5/8 SLD-220 220 ⅝ Slim Duck rubber ant	17.99
5/8 SLD-440 440 ⅝ Slim Duck rubber ant	17.99
5/8 SLD-2 Combo 2m ⅝ duck & stubby ant	24.99
5/8 SLD-220 Combo 220 ⅝ duck & stubby ant	24.99
5/8 SLD-440 Combo 440 ⅝ duck & stubby ant	24.99
FLX 1/2 WAV-2M ½ wv 2m BNC whip/flex coil	25.99
RD-2 2m rubber duck antenna	14.99
RD-220 220 rubber duck antenna	14.99
RDMD-2 2m mini rubber duck antenna	14.99
RDMD-220 220 mini rubber duck antenna	14.99
RDMD-440 440 mini rubber duck antenna	14.99
RDS-2 2m stubby rubber duck antenna	14.99
RDS-220 220 stubby rubber duck antenna	14.99
RDS-440 440 stubby rubber duck antenna	14.99
SD-2 2m Slim Duck thin rubber antenna	14.99
SD-220 220 Slim Duck thin rubber antenna	14.99
SL-440 440 slimline type duck	12.99
SS-II Super Stick 2m ⅝ wv telescopic ant	19.99
SS-III Super Stick 220 ⅝ wv telescopic ant	19.99
SS-IV Super Stick 440 ⅝ wv telescopic ant	19.99
SS-II/Combo 2m ⅝ wv telescopic & stubby ant	26.99
SS-III/Combo 220 ⅝ wv telescopic & stubby ant	26.99
SS-IV/Combo 440 ⅝ wv telescopic & stubby ant	26.99
TAQ-2 2m ¼ wave stainless whip	10.99
TAQ-220 220 ¼ wave stainless whip	10.99
TAQ-440 440 ¼ wave stainless whip	10.99
TS Thin Stick 2m/220 ⅜ wave telescopic whip	16.99

SOLARCON (SOL)

A-99 10m/CB 17' 8" fiberglass base ant	$ 64.99
GPK-1 Ground plane radial kit	39.99

SONY (SON)

SHORTWAVE

ICF-2010 AM/FM/SW/LW/air port Rcvr w/ps	$359.99
ICF-SW07 AM/FM/SW micro Rcvr w/ps	399.99
ICF-SW11 AM/FM/SW compact receiver	49.99
ICF-SW12 AM/FM/SW travel Rcvr/world clock	99.99
ICF-SW35 AM/FM/SW portable receiver	89.99
ICF-SW40 AM/FM/SW port receiver	129.99
ICF-SW77 AM/FM/SW portable receiver	469.99
ICF-SW100S AM/FM/SW portable receiver	349.99
ICF-SW1000T AM/FM/SW port Rcvr/cassette †	399.99
ICF-SW7600GR AM/FM/SW portable receiver	179.99
AC-E60HG 6vdc 400ma AC adapter D	22.99
AN-1 LW/MW/SW outdoor active rcv ant	99.99
AN-102 LW/MW/SW indoor active rcv ant	79.99
AN-LP1 Folding active loop ant w/case	89.99
DCC-E260 Mobile DC adapter; ICF-SC1 D	9.99

Super Antennas (SUA)

MP-1 Portable 150w 7-50Mhz antenna	$150.99
FT817MKT MP-1 mounting bkt for FT-817	20.99
MBKT MP-1 mobile kit (4' whip & 2' base rod)	15.99
MP-80 80m coil for MP-1	25.99
TRPD Tripod for MP-1	20.99
YP-2 Port 2el 20-6m 6-band beam w/carry bag	439.99

SUPERIOR (SUP)

18640 Universal grip-type adjustable HT cradle	$ 14.99
(HOU) **CPM-310** 6" adjustable pedestal mt	14.99

Synthetic Textiles (SYN)

100' 3/32" black double braided rope	$ 6.99
100' 3/16 3/16" black double braided rope	14.99
100' 5/16 5/16" black double braided rope	19.99
350' 3/16" black double braided rope	39.99

TE SYSTEMS (TES)

0510G 6m FM/SSB 10/170w amp/preamp	$319.99
0552G 6m FM/SSB 20-25/375w amp/preamp	486.99
1410G 2m FM/SSB 5-10/160w amp/preamp	328.99
1412G 2m FM/SSB 25-45/160w amp/preamp	286.99

TE Systems - continued AES Price

1452G 2m FM/SSB 10-25/350w amp/preamp	525.99
2212G 220 FM/SSB 25-45/130w amp/preamp	316.99
4412G 440 FM/SSB 15-30/100w amp/preamp	355.99
4452G 440 FM/SSB 25/185w amp/preamp	547.99

TV GUARDIAN (TVG)

TV Guardian Foul language filter for TV/video	$ 89.99

Terk Technologies (TER)

AF-9330 Indoor AM/amplified FM tower ant	$ 24.99
AF-9925 Indoor AM/amplified FM loop ant	49.99
AM-1000 Indoor passive fine-tunable AM ant	49.99
FM-50 Amplified indoor/outdoor FM ant kit	99.99
LF-20 2.4GHz wireless video/audio system	89.99
LF-IRX Remote control extender	39.99
MOD-41 Deluxe RF modulator/switch	39.99
TSP-6 AC/TV/telephone surge protector	39.99
TV-42 Clip-on mini dish mt amp TV ant; 2 LNB dish	59.99
TV-55 Indoor/outdoor TV antenna	89.99
TV-MAST Mast mount kit for TV-50 D	6.99

Times Microwave (TMS)

LMR-400 Standard ⅜" coax cable per ft.	$ .64
LMR-400 500 ft. Roll	249.99
LMR-400-DB Watertight ⅜" coax cable per ft.	.74
LMR-400-DB 500 ft. Roll	299.99
LMR-400-UF UltraFlex ⅜" coax cable per ft.	.98
LMR-400-UF 500 ft. Roll	399.99

TIMEWAVE (TIM)

ANC-4 RF noise canceller	$209.99
AC-1 12vdc 600 ma adapter	15.99
AC-5 12vdc 1.7A desktop ps	24.99
DSP-599zx All-mode DSP noise filter	436.99
AC-5 12vdc 1.7A desktop ps	24.99
DSP-RTTY RTTY prog; DSP-599zx/59Y D	29.99
PK-96/100K 9600 baud controller/128K RAM	219.99
(CSS) **PK-Term 99** Terminal prog; PK-96/232	79.99
AC-1 12vdc 600 ma adapter	15.99
AC-5 12vdc 1.7A desktop ps	24.99
PK-232/PSK Multimode controller w/sound card	531.99
(CSS) **PK-Term 99** Terminal prog; PK-96/232	79.99
AC-5 12vdc 1.7A desktop ps	24.99

TRIPP LITE (TRI)

PV-140 140w 12vdc-115vac inverter	$ 42.99
PV-300 300w 12vdc-115vac inverter	65.99
ISOBAR-8 ULTRA 8 outlet surge suppress/LEDs	79.99
MT-6+ 6 outlet console surge suppressor Δ	39.99
SUPER-7 7 outlet surge suppressor	19.99
SUPER-7+TEL 7 outlet/fax modem surge	29.99

TUBES (TUB)

6146W Tube	$ 26.99
12BY7A Tube	12.99
3-500ZG-RFP High dissipation tube (3-500Z)	149.99
3-500Z Δ	229.99
572B Tube	49.99
811A Tube	19.99

Also see SVETLANA

US TOWER (UST)

FREE STANDING CRANK-UPS (not for T²X)

TX-438 38' crank-up tower T	1142.99
TX-455 55' crank-up tower T	1699.99
TX-472 72' crank-up tower T	2832.99
TX-472MDP 72' crank-up w/motor drive T	4549.99
TX-489MDPL 89' crank-up w/motor drive T	7390.99
TX-3106MDPLSP 106' crank-up/mot drive †T	11699.99

FREE STANDING HD CRANK-UP TOWERS

HDX-538 38' crank-up tower T	1477.99
HDX-555 55' crank-up tower T	2569.99
HDX-572MDPL 72' crank-up w/motor drive T	6775.99

US Tower - continued AES Price

HDX-589MDPL 89' crank-up w/motor drive T	8869.99
HDX-689MDPL 89' HD crank-up w/motor T	17135.99
HDX-5106MDPL 106' HD crank-up w/motor T	18647.99

COMPACT TMM (Top mt rotor for full retraction)

TMM-433SS 33' crank-up tower T	1219.99
TMM-433HD 33' HD crank-up tower T	1477.99
TMM-541SS 41' crank-up tower T	1599.99

ACCESSORIES FOR CRANK-UP TOWERS

CX-2 Coax arms (2) for 2-section tower	$ 55.99
CX-3 Coax arms (3) for 3-section tower	77.99
CX-4 Coax arms (4) for 4-section tower	122.99
CX-5 Coax arms (5) for 5-section tower	150.99
CX-6 Coax arms (6) for 6-section tower	190.99
HDP Service platform T	813.99
STS-4 Rotor accessory for TX/TMM towers T	211.99
IV-16 Inverted vee arm for MA's	41.99
M-5 2" OD 5' mast extension for MA's	40.99
M-10 2" OD 10' mast T	77.99
M-15 2" OD 15' mast T	115.99
M-20 2" OD 20' mast T	136.99
M-15R 2" OD 15' reinforced mast T	156.99
M-20R 2" OD 20' reinforced mast T	207.99
CM-20 2" OD 20' cromolly mast T	489.99
MD-75 Heavy duty 1 HP motor drive T	997.99
MDP-750* Pull-down drive; TX-472/HDX-555 T	1551.99
MDPL-1000* Pull-down drive; HDX-572 T	2106.99

*Requires MCL-100 or RMC-1000. MDP-750 and MDPL-1000 not sold separately

MRF Mast raising fixture	268.99
MCL-100 Limit switch package	465.99
RMC-1000 Remote control w/limit switch	997.99
RP-3 Rotor plate for 10" section	39.99
RP-4 Rotor plate for 12½" section	47.99
RP-5 Rotor plate for 15" section	52.99
TRX-80 Raising fixture; TX-438/455;HDX-538/555 T	434.99
TRX-80HD Raising fixture;TX-472/489;HDX-572/589 T	571.99
TRX-100HD Raising fixture; HDX-689/5106 T	805.99
TB-2US Thrust bearing; 2" mast w/2 flange holes	110.99

MA-SERIES TUBULAR TOWERS

MA-40 40' crank-up mast T	$899.99
MA-550 55' crank-up mast T	1499.99
MA-550MDP 55' crank-up mast w/motor T	2932.99
MA-770* 70' crank-up mast T	2529.99
MA-770MDP* 70' crank up mast w/motor T	3999.99
MA-850* 85' crank-up mast T	3909.99
MA-850MDP* 85' crank-up mast w/motor T	5391.99

*Requires MAB or MARB-series base

MA-SERIES ACCESSORIES

CX-2M Coax arms (2) for MA-40	$ 59.99
CX-3M Coax arms (3) for MA-550	88.99
CX-4M Coax arms (4) for MA-770	133.99
CX-5M Coax arms (5) for MA-850	160.99
MAB-40 Hinged base for MA-40 T	361.99
MAB-550 Hinged base for MA-550 T	432.99
MAB-770 Hinged base for MA-770 T	522.99
MAB-850 Hinged base for MA-850 T	633.99
MAF-40 Raising fixture for MA-40	221.99
MAF-550 Raising fixture for MA-550 T	306.99
MAF-770 Raising fixture for MA-770 T	311.99
MAF-850 Raising fixture for MA-850 T	412.99
MARB-40 Rotor base accessory for MA-40 T	553.99
MARB-550 Rotor base accessory for MA-550 T	654.99
MARB-770 Rotor base accessory for MA-770 T	774.99
MARB-850 Rotor base accessory for MA-850 T	916.99

All US TOWER products are drop-shipped (shipped direct to you from the US TOWER factory). On these factory drop-shipments we prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the

US Tower - continued

AES Price

factory. This means that you may be billed before you receive your drop-shipped merchandise. Shipment is FOB Visalia, California via truck, COD for freight charges only. Freight charges will be collected upon delivery by the carrier. Please allow sufficient time for delivery on these special order products. Most truck lines will not unload the tower for you, so please be sure to have enough manpower and/or equipment on hand when your tower is delivered by the carrier.

UNADILLA (See W2AU)

UNIDEN (UNI)

PC-68LTW	AM Mobile CB w/WX alert	$ 99.99
PC-68XL	AM Mobile CB	79.99
PC-78LTW	AM Mobile CB w/WX alert	119.99
PC-78XL	AM Mobile CB	99.99
PRO-510XL	AM Mobile CB	39.99
PRO-520XL	AM Mobile CB	54.99
PRO-538W	AM Mobile CB w/WX	59.99

UNIDEN BEARCAT

BC-244CLT	30 ch scanner w/instant WX	$ 99.99
BC-248CLT	50 ch scanner w/WX alert	109.99
BC-278CLT	100 ch scanner/SAME WX alert	169.99
BC-350A	50 ch prog/service search w/AC ps	109.99
BC-785D	1100 ch scanner/trunk/SAME WX	369.99
BCI-25D	Digital board for BC-785D	299.99
BC-780XLT	500 ch scanner/trunk/SAME WX	349.99
BC-895XLT	300 ch prog scanner/trunking	199.99
BCT-7	Pre-prog warning scan/air/800/AC ps	169.99
BC-003	Switch box for BC-002 Δ	6.99
BC-004	RF preamp for BC-760XLT Δ	19.99
BC-005	CTCSS tone board; 8500/9000XLT Δ	37.99
BC-60XLT-1	30ch prog pocket; use AA batts	89.99
BC-80XLT	50 ch prog pocket scanner/800	119.99
UA-502	Cig power cord	11.99
AD-100	AC adapter/batt cgr; earlier scanners	16.99
AD-140	Extra charger; BC-100XLT/200XLT	13.99
BP-200	Extra battery; BC-200XLT	26.99
BP-205	Extra battery; BC-100XLT	26.99
SC-180B	100 ch sport pocket/800 MHz	169.99
SC-200	200 ch sport pocket/800 MHz	199.99
AD-70	Extra charger	10.99
BP-120	Extra battery	18.99
LC-120	Carrying case; BC120XLT/230XLT	19.99
(KOS) **QZ/99**	Noise reduction headphones	59.99
UA-502	Cig power cord	11.99
BC-245XLT	300 ch pocket/trunk/smart scan	219.99
BP-180	Extra battery	16.99
CRX-120	Desk charger; BC-245XLT	24.99
LC-120	Carrying case	19.99
UA-502	Cig power cord	11.99
BC-250D	1100 ch pocket/trunk/SAME WX	369.99
BCI-25D	Digital board for BC-250D	299.99
BP-2500	Extra batt; BC2500/3000 Δ	63.99
LC-150B	Carrying case; SC-150B Δ	4.99
RFD-001	IN/IL/KY/OH/MI/WI freq book	14.99
Atlantis	5w VHF marine handheld	99.99
HH-940P	1w submersible VHF marine handheld	139.99
HH-985	5w 90ch marine handheld/SAME WX alert	149.99
Mystic	5w VHF marine HH/GPS mapping/database	329.99
Voyager	5w VHF marine handheld/lith ion batt	159.99
Polaris	25w VHF marine Xcvr w/hailer	199.99
Solara	25w 90 ch VHF marine Xcvr	99.99
Oceanus	25w 90 ch VHF marine Xcvr	129.99

Unified Microsystems (UNM)

XT-4	Small size CW memory keyer	$ 69.99
KC-4	Cable set for XT-4 to transceiver	9.99
W9XT	Contest card for IBM PC & compatible	149.99
CCC-4	4pin mic contest card cable semi-kit	44.99
CCC-8	8pin mic contest card cable semi-kit	44.99

AES Price

UNI-SOLAR (UNS)

USF-5/FLX-5	5w flexible solar cell	$ 99.99
USF-32/FLX-32	32w flexible solar cell	299.99

Universal Towers (UNT)

4-30	4 sq ft wind load 30' alum tower T	$325.99
9-30	9 sq ft wind load 30' alum tower T	438.99
12-30	12 sq ft wind load 30' alum tower T	576.99
21-30	21 sq ft wind load 30' alum tower T	684.99
23-30	23 sq ft wind load 30' alum tower T	906.99
35-30	35 sq ft wind load 30' alum tower T	1021.99
4-40	4 sq ft wind load 40' alum tower T	546.99
7-40	7 sq ft wind load 40' alum tower T	686.99
9-40	9 sq ft wind load 40' alum tower T	765.99
12-40	12 sq ft wind load 40' alum tower T	906.99
15-40	15 sq ft wind load 40' alum tower T	1013.99
21-40	21 sq ft wind load 40' alum tower T	1125.99
23-40	23 sq ft wind load 40' alum tower T	1347.99
4-50	4 sq ft wind load 50' alum tower T	769.99
5-50	5 sq ft wind load 50' alum tower T	875.99
7-50	7 sq ft wind load 50' alum tower T	985.99
9-50	9 sq ft wind load 50' alum tower T	1095.99
15-50	15 sq ft wind load 50' alum tower T	1455.99
16-50	16 sq ft wind load 50' alum tower T	1570.99
4-60	4 sq ft wind load 60' alum tower T	1096.99
6-60	6 sq ft wind load 60' alum tower T	1344.99
7-60	7 sq ft wind load 60' alum tower T	1431.99
9-60	9 sq ft wind load 60' alum tower T	1534.99
3-70	3 sq ft wind load 70' alum tower T	1429.99
4-70	4 sq ft wind load 70' alum tower T	1756.99
6-70	6 sq ft wind load 70' alum tower T	1788.99
7-70	7 sq ft wind load 70' alum tower T	1869.99
3-80	3 sq ft wind load 80' alum tower T	1926.99
4-80	4 sq ft wind load 80' alum tower T	2231.99
2-90	2 sq ft wind load 90' alum tower T	2311.99
B-14	Base for tower	67.99
B-18	Base for tower	67.99
B-22	Base for tower	103.99
B-26	Base for tower	132.99
Extra **14" stubs**	(between base & tower) .set	14.99
Extra **18" stubs**	(between base & tower) .set	26.99
Extra **22" stubs**	(between base & tower) .set	42.99
Extra **26" stubs**	(between base & tower) .set	42.99
Extra **30" stubs**	(between base & tower) .set	63.99
RFM-11	Flat roof mt for guyed tower	46.99
RFM-14	Flat roof mt for guyed tower	46.99
RFM-18	Flat roof mt for guyed tower	72.99
RFM-22	Flat roof mt for guyed tower	97.99
RFM-26	Flat roof mt for guyed tower	129.99
R-11	Rotor mount	32.99
R-14	Rotor mount	49.99
R-18	Rotor mount	65.99

SEE LITERATURE FOR TOWER CONFIGURATIONS

11 Top	11" top tower section T	110.99
14 Top	14" top tower section T	138.99
18 Top	18" top tower section T	252.99
14 Taper	14" taper tower section T	122.99
18 Taper	18" taper tower section T	219.99
22 Taper	22" taper tower section T	327.99
26 Taper	26" taper tower section T	440.99
11 Straight	11" straight tower section T	108.99
14 Straight	14" straight tower section T	122.99
18 Straight	18" straight tower section T	219.99
22 Straight	22" straight tower section T	327.99
26 Straight	26" straight tower section T	440.99
HD35-40	35 sq ft wind load 40' alum tower T	1573.99
HD21-50	21 sq ft wind load 50' alum tower T	1677.99
HD9-60	9 sq ft wind load 60' alum tower T	1759.99

Universal - continued

AES Price

HD16-60	16 sq ft wind load 60' alum tower T	2119.99
HD21-60	21 sq ft wind load 60' alum tower T	2232.99
HD8-70	8 sq ft wind load 70' alum tower T	1979.99
HD12-70	12 sq ft wind load 70' alum tower T	2451.99
HD17-70	17 sq ft wind load 70' alum tower T	2674.99
HD21-70	21 sq ft wind load 70' alum tower T	2787.99
HD8-80	8 sq ft wind load 80' alum tower T	2533.99
HD9-80	9 sq ft wind load 80' alum tower T	2642.99
HD11-80	11 sq ft wind load 80' alum tower T	3002.99
HD12-80	12 sq ft wind load 80' alum tower T	3006.99
HD16-80	16 sq ft wind load 80' alum tower T	3227.99
HD4-90	4 sq ft wind load 90' alum tower T	2637.99
HD8-90	8 sq ft wind load 90' alum tower T	3112.99
HD11-90	11 sq ft wind load 90' alum tower T	3558.99
HD4-100	4 sq ft wind load 100' alum tower T	3533.99
HD8-100	8 sq ft wind load 100' alum tower T	3780.99
B-30	Base for HD tower	207.99
RFM-30	Flat roof mt for guyed tower	180.99
1-5/8SC	Flange bearing	98.99
2-3/16SC	Flange bearing	109.99
Top Plate	Flange plate welded to top section	24.99

SEE LITERATURE FOR TOWER CONFIGURATIONS

30 Taper	30" taper tower section T	554.99
30 Straight	30" straight tower section T	554.99
1-1/4" OD x 5 ft	aluminum mast T	23.99
1-1/4" OD x 10 ft	aluminum mast T	33.99
1-1/2" OD x 10 ft	aluminum mast T	41.99
2" OD x 8 ft	aluminum mast	49.99
2" OD x 16 ft	aluminum mast T	95.99

All UNIVERSAL TOWERS products are drop-shipped (shipped direct to you from the UNIVERSAL TOWERS factory). On these factory drop-shipments we prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your drop-shipped merchandise. Shipment is FOB Mt. Clemens, Michigan via truck, COD for freight charges only. Freight charges will be collected upon delivery by the carrier. Please allow sufficient time for delivery on these special order products. Most truck lines will not unload the tower for you, so please be sure to have enough manpower and/or equipment on hand when your tower is delivered by the carrier.

VALOR (See PRO AM)

VANCO (VCO)

370052	3½ digit multimeter	$ 19.99
HF-24RS	Scanner headphones w/dual volume	19.99
SWR-1	SWR/field strength meter	19.99
SWR-3	Mini SWR meter	14.99

VAN GORDEN (VAN)

Hi-Q 1:1	balun	$ 14.99
Hi-Q 4:1	balun	14.99
Antenna center	insulator	6.99
Antenna end	insulator pair	4.99
Dog bone	type antenna insulator each	.99
NR-100	Nylon antenna guy rope 100 ft.	4.99
NR-1000	Nylon ant guy rope 1000 ft.	44.99
D-80	80m 130' wire dipole antenna	32.99
SD-80	Short 90' 80m dipole	36.99
D-40	40m 66' wire dipole antenna	29.99
SD-40	Short 45' 40m dipole	34.99
D-20	20m 33' wire dipole antenna	28.99
D-15	15m 22' wire dipole antenna	27.99
D-10	10m 16' wire dipole antenna	26.99
All Bander	Dipole 160-10m (use tuner) 135' ant	29.99
Shorty	All Bander 160-10m (use tuner) 70' ant	44.99
G5RV	Flat-top 3.5-30 102' ant/xmfr/100' cable	50.99
G5RV-E	Flat-top 3.5-30 102' ant/31' twinlead	28.99
G5RV JR	Flat-top 7-30 52' ant/17' twinlead	24.99

Van Gorden - continued

	AES Price
G5RV-M Flat-top 1.8-30 204' ant/65' twinlead	50.99
N connector Type N connector for 9913/8214	4.99
#14 Stranded hard drawn ant wire ....**100** ft.	11.99
#14 Stranded hard drawn ant wire ....**150** ft.	16.99
300 ohm 1kw transmitting twinlead ...**100** ft.	19.99
450 ohm 18ga solid ladderline .....**100** ft.	14.99
450 ohm 18ga solid ladderline .....**1000** ft.	109.99
450 ohm 14ga stranded ladderline .....**100** ft.	29.99
450 ohm 14ga stranded ladderline ...**1000** ft.	229.99
(WA1) WA1FFL **Ladder-Loc** 450 ohm ctr ins	12.99
RG-213 Non-contaminating .....per ft.	.49
RG-213/500 Non-contaminating .500 ft. Roll	179.99
8X-1.5ST 1.5' RG-8X coax/silver teflon PL259s	7.99
8X-3ST 3' RG-8X coax/silver teflon PL259s ...	8.99
8X-6ST 6' RG-8X coax/silver teflon PL259s ...	10.99
8X-12ST 12' RG-8X coax/silver teflon PL259s	11.99
8X-25ST 25' RG-8X coax/silver teflon PL259s	15.99
8X-50ST 50' RG-8X coax/silver teflon PL259s	24.99
8X-75ST 75' RG-8X coax/silver teflon PL259s	31.99
8X-100ST 100' RG-8X coax/silver teflon PL259s	37.99
213-25ST 25' RG-213 coax/silver teflon PL259s	25.99
213-50ST 50' RG-213 coax/silver teflon PL259s	38.99
213-75ST 75' RG-213 coax/silver teflon PL259s	54.99
213-100ST 100' RG-213 coax/silver teflon PL259s	72.99

VECTRONICS (VEC)

VC-300M 300w mobile antenna tuner	$ 99.99
VC-300DLP 300w antenna tuner	149.99
VC-300D 300w digital antenna tuner	179.99
HFT-1500 1.5kw antenna tuner	399.99
AT-100 .3-30 MHz active antenna/tuner	79.99
HPF-1 High pass filter, 75 or 300 ohms	24.99
HPF-2 Deluxe high pass filter, 75 or 300 ohms	29.99
LP-30 1.5kw low pass filter	69.99
LP-2500 2.5kw low pass filter	129.99
CK-200 Deluxe keyer	79.99
DL-300M 300w 150MHz dummy load	44.99
DL-650M 1.5kw 650MHz dummy load	74.99
DL-2500 2.5kw 150MHz dummy load	179.99
PM-30HF 300/3kw HF wattmeter	79.99
PM-30UV 30/300w VHF/UHF wattmeter	89.99
AC-12 12vdc 300ma adapter .....D	9.99
PS-50F 35A power supply, 50A surge .....Δ	119.99
121K Crystal radio set kit	19.99
131K Aircraft receiver kit	29.99
201K CW keyer kit	24.99
412K Nicad/NiMH battery conditioner kit	49.99
422K FM broadcast SCA decoder kit	27.99
830K Super SSB audio filter kit	19.99
841K Tunable SSB/CW audio filter kit	34.99
1140K 40m receiver kit	29.99
1240K 40m QRP CW transmitter kit	29.99
1290K AM radio transmitter kit	29.99
1294K TV transmitter kit	27.99
1402K 2m preamp kit	17.99

VELLEMAN (VEL)

DVM-810 3½ digit digital multimeter	$ 9.99
DVM-850BL 3½ digit deluxe DMM w/holster ..	19.99
VT-COAX Coax stripper; RG-58/59/62/6	14.99

VIBROPLEX (VIB)

090 Original Gold Bug	$309.99
100 Original Presentation Super deluxe bug	269.99
105 Original Deluxe Bug	199.99
110 Original Standard Bug	169.99
113 VibroKeyer Gold Paddle	279.99
115 VibroKeyer Deluxe Paddle	184.99
120 VibroKeyer Standard Paddle	149.99
123 Iambic Gold Paddle	279.99
125 Iambic Presentation Paddle	249.99

Vibroplex - continued

	AES Price
130 Iambic Deluxe Paddle	189.99
135 Iambic Standard Paddle	149.99
145 Triangular Brass Racer Iambic paddle .	139.99
150 Square Brass Racer Iambic paddle	139.99
153 Gold straight key	279.99
155 Standard straight key	149.99
160 Deluxe straight key	189.99
162 Gold Hand key/Iambic Paddle double	369.99
163 Gold Hand key/VibroKeyer Paddle double	369.99
165 Deluxe Hand key/Iambic Paddle double .	329.99
170 Dlx Hand key/VibroKeyer Paddle double .	329.99
175 Standard Hand key/Iambic Paddle double	279.99
180 Std Hand key/VibroKeyer Paddle double .	279.99
185 Square Racer Deluxe Iambic paddle	139.99
190 Square Racer Standard Iambic paddle .	119.99
195 Blue Racer 2000 Std Millennium Bug ...	189.99
198 Blue Racer 2000 Dlx Millennium Bug ...	229.99
200 Code Warrior Junior Paddle	99.99

WA1FFL (WA1)

Ladder-Loc 450 ohm ladderline center attach	$ 12.99

W2AU (Unadilla) (W2A)

W2AU 1:1 160-10m balun, lightning arrestor	$ 24.99
W2AU 4:1 160-10m balun, lightning arrestor	24.99
W2AU Beam Balun, 1:1	24.99
W2DU-HF 1:1 1.8-30 MHz choke balun	26.99
W2DU-VHF 1:1 30-250 MHz choke balun	26.99
W2DU Beam Balun 40-10m 1:1 choke balun	26.99
HA AN-sulator center insulator	9.99
HE END-sulator end insulators .....pair	4.99

W5YI (W5Y)

ECS-02 Extra upgrade software/manual/code	$ 39.99
GUS General upgrade software/manual/code	34.99
GW05 Gordon West 6 ea 0-5 wpm code tapes ..	29.99
GW13 Gordon West 6 ea 5-16 wpm code tapes	29.99
GW20 Gordon West 6 ea 10-28 wpm code tapes	29.99
GWEM-02 Gordon West Extra study manual ..	19.99
GWEW-02 Gordon West 4 ea Extra theory tapes	29.99
GWGM Gordon West General study manual ...	12.99
GWGW Gordon West 4 ea General theory tapes	19.99
GWTM Gordon West Technician study manual	11.99
GWTW Gordon West 4 ea Tech theory tapes ..	19.99
HOS-02 Ham operator software/code (all classes)	39.99
NCS Technician software w/manual	34.99
NCVP Technician video/manual/part 97 book	29.99
TPG Tech/General software/manuals/code	49.99
WMC 0-48 wpm code software	14.99

WAHL (WAH)

7740 Quick charge cordless soldering iron kit	$ 47.99
7971 30 minute butane soldering iron	19.99
7974 120 minute butane soldering iron	27.99

WELLER (WEL)

7200PK 75w soldering gun kit	$ 29.99
EC-1002-1 40w temp controlled solder stn ..	199.99
SP-23LK 25w soldering iron kit	19.99
WP-25 25w professional soldering iron	34.99
W-60P 60w temp controlled soldering iron ...	64.99
WSTA3 Pyropen portable LP soldering iron	99.99
WST2 Pyropen Jr. portable butane iron	89.99
WTCPT 60w temp controlled soldering stn	119.99

West Mtn Radio (WES)

RB/PL/C Rigblaster Plus for 8-pin radios	$139.99
RB/M8/C Rigblaster for 8-pin radios	109.99
RB/NO/8C Rigblaster nomic for 8-pin radios	59.99
RB/NO/RJC Rigblaster nomic for RJ-45 radios	59.99
FT100/CBL Custom 3' cable for Yae FT100	19.99
Note: use nomic model with FT100	

West Mtn - continued

	AES Price
RR/4012/C Rigrunner 40A 12outlet/cbl/connectors	109.99
C30/PK/12 12pr PowerPole 30A connectors	10.99
CR/Tool Gardner Bender forged crimp tool	9.99

WILSON (WIL)

FGT-4/BLK 4' black figerglass CB whip	$ 27.99
FGT-4/WHT 4' white figerglass CB whip	27.99
Little Wil Magnetic mt CB antenna	31.99
Trucker 2000 Black mobile ⅜-24 CB whip ...	57.99
W-1000 Magnetic Black mobile CB antenna	76.99
W-1000 Roof Top Black mobile CB antenna .	57.99
W-1000 Trunk Lip Black mobile CB antenna	65.99

WINEGARD (WIN)

CX-0625 25' RG-6 TV coax w/F connectors ...	$ 10.99
CX-0650 50' RG-6 TV coax w/F connectors ...	15.99
CX-0675 75' RG-6 TV coax w/F connectors ...	19.99
CX-6100 100' RG-6 TV coax w/F connectors .	24.99
DS-2000 Universal pipe/tower mt; TV ant ..Δ	6.99
PR-7010 22 el 66.5" boom Prostar TV ant	39.99
PR-7032 33 el 103.25" boom Prostar TV ant	64.99
PR-7042 43 el 149.75" boom Prostar TV ant	99.99
TV-2900 Outdoor TV matching transformer	2.99

YAESU (YAE)

FT-1000MP Mk V 200w HF Xcvr/EDSP/tuner/ps .	*2599.99
Price w/instant coupon; coupon expires 9/30/02	
FT-1000 Mk V Pac FT1000MPMkV/MD200A8X .	*2699.98
Price w/instant coupon; coupon expires 9/30/02	
Mk V Field 100w HF Xcvr/EDSP/tuner/ps	*2199.99
Price w/instant coupon; coupon expires 9/30/02	
Mk V Field Pack Mk V Field/MD-200A8X ..	*2299.98
Price w/instant coupon; coupon expires 9/30/02	
DVS-2 Digital voice recording module	219.99
FH-1 Remote control keypad	88.99
FTV-1000 200w 6m transverter; Mk V	899.99
FP-29 30vdc ps; FTV-1000 w/orig MP/Field	499.99
FRB-5 Relay board; FTV-1000 w/orig MP	50.99
MD-100A8X Desk mic w/tone control	129.99
MD-200A8X Deluxe high fidelity desk mic .	379.99
MH-31B8 Extra hand microphone	39.99
SP-8 External speaker w/filters	159.99
LL-7 Phone patch unit for SP-8	139.99
TCXO-6 Deluxe TCXO unit, 0.5 ppm	174.99
YF-110CN 250 Hz 3rd IF main Rcvr CW filt	144.99
YF-110SN 2 KHz 3rd IF main Rcvr SSB filt	144.99
YF-114CN 250 Hz 2nd IF main Rcvr CW filt	144.99
YF-114SN 2 KHz 2nd IF main Rcvr SSB filt	144.99
YF-115C 500 Hz CW Collins mech filter	159.99
YH-77STA Open-air type stereo headphones	51.99
FT-1000D Dlx Xcvr/BPF/TCXO/XF-ABCDE/ps †	4199.99
DVS-2 Digital voice recording module	219.99
FIF-232C Interface for RS-232	95.99
MD-100A8X* Desk mic w/tone control	129.99
*Cable needed for FT-1000D; contact service for info	
MD-200A8X Deluxe high fidelity desk mic .	379.99
SP-5 External spkr w/audio filter	144.99
LL-5 Phone patch unit for SP-5	129.99
XF-455MC 600Hz CW filter (455KHz); subrcvr	144.99
YF-110CN/XF-F 250 Hz CW xtal filter (455 KHz)	144.99
YH-77STA Open-air type stereo headphones	51.99
FT-920 9-band Xcvr/AF-DSP/tuner/6m/kyr †	*1139.99
Price w/instant coupon; coupon expires 9/30/02	
FT-920 Pack FT-920/MD-100A8X/YF-116A	*1289.97
Price w/instant coupon; coupon expires 9/30/02	
FM-1 FM unit FREE with FT-920! Limited Time!	
FP-1023 23A switching ps w/fan, 25A surge ...	159.99
FP-1030A 25A ps, 30A surge w/meters	249.99
FM-1 FM unit	62.99
MD-100A8X Desk mic w/tone control	129.99
MD-200A8X Deluxe high fidelity desk mic .	379.99
SP-8 External speaker w/filters	159.99

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

Yaesu - continued AES Price

LL-7 Phone patch unit for SP-8 ..... 139.99
T-9018320 Extra DC cable 26.99
TCXO-7 TCXO unit 99.99
YF-116A 6 KHz AM filter 119.99
YF-116C 500 Hz CW filter 119.99
YH-77STA Open-air type stereo headphones 51.99
FT-847 HF/6m/2m/430 Earth Station Xcvr/mic † *1249.99
*Price w/instant coupon; coupon expires 9/30/02
FT-847 Pack FT-847/MD-100A8X/FP-1023 . *1489.97
*Price w/instant coupon; coupon expires 9/30/02
FP-1023 23A switching ps w/fan, 25A surge ... 159.99
FP-1030A 25A ps, 30A surge w/meters 249.99
ATAS-100 HF/6/2/430 motorized mob ant .. *249.99
*Price w/instant coupon; coupon expires 9/30/02
ATAS-120 HF/6/2/430 motorized mob ant .. 329.99
ATBK-100 Antenna base kit; use w/base mt 89.99
CT-39 Packet cable 9.99
CT-61 Interface cable; FT-847 to amp 15.99
FC-20 Automatic antenna tuner 269.99
FVS-1A Voice synthesizer 43.99
MD-100A8X Desk mic w/tone control 129.99
MD-200A8X Deluxe high fidelity desk mic . 379.99
MH-36D8 TTP mobile microphone 60.99
MMB-66 Mobile mounting bracket 39.99
SP-8 External speaker w/filters 159.99
T-9018320 Extra DC cable 26.99
YF-115C 500 Hz CW Collins mech filter 159.99
YF-115S-02 2.5 KHz SSB Collins mech filt 159.99
YH-77STA Open-air type stereo headphones 51.99
FT-840 HF Xcvr/SW Rcvr/mic .....† *599.99
*Price w/instant coupon; coupon expires 9/30/02
FT-840 Pack FT-840/MD-100A8X/FP-1023 *819.97
*Price w/instant coupon; coupon expires 9/30/02
FP-1023 23A switching ps w/fan, 25A surge ... 159.99
FP-1030A 25A ps, 30A surge w/meters 249.99
FC-10 External coax fed auto tuner 379.99
FC-800 External long wire auto tuner 439.99
FIF-232C Interface for RS-232 ..... 95.99
FM-747 FM unit 62.99
MD-100A8X* Desk mic w/tone control 129.99
*Cable needed for FT-840; contact service for info
MD-200A8X Deluxe high fidelity desk mic . 379.99
MLS-100 Mobile speaker 45.99
MMB-20 Mobile mount 34.99
SP-6 External speaker w/filter 144.99
T-9018320 Extra DC cable 26.99
TCXO-4 TCXO unit 99.99
YF-112A 6 KHz AM filter 119.99
YF-112C 500 Hz CW filter 119.99
YH-77STA Open-air type stereo headphones 51.99
FT-897 HF/6m/2m/430 portable/base Xcvr . 1049.99
FP-30 Internal power supply 209.99
ATAS-120 HF/6/2/430 motorized mob ant .. 329.99
ATBK-100 Antenna base kit; use w/base mt 89.99
CT-39 Packet cable 9.99
CT-62 CAT interface cable 29.99
FC-30 Antenna tuner; bolts to FT-897 ..... 239.99
FNB-78 4.5 AH NiMH batt (will accept 2) ea 119.99
CD-24 4-hr charge adapter for FNB-78 .. 119.99
PA-26B Charger for CD-24 ..... 85.99
MD-100A8X Desk mic w/tone control 129.99
MD-200A8X Deluxe high fidelity desk mic . 379.99
MH-36E8J TTP mic 60.99
MLS-100 Mobile speaker 45.99
MMB-80 Mobile mounting bracket 35.99
TCXO-9 TCXO unit, 0.5 ppm..... 99.99
YF-122C 500 Hz Collins CW filter 159.99
YF-122S 2.3 KHz Collins SSB filter 159.99
YH-77STA Open-air type stereo headphones 51.99
FT-817 5w HF/6m/2m/430 SSB/AM/FM Xcvr *669.99
*Price w/instant coupon; coupon expires 9/30/02

Yaesu - continued AES Price

FT-817 Pack FT817/FNB72/NC72B/MH36E8J/CSC83 *786.95
*Price w/instant coupon; coupon expires 9/30/02
(W4R) OTT-1 One-touch tune for FT-817 .... 59.99
CSC-83 Soft case w/side pocket for FT-817 25.99
CT-39 Packet cable 9.99
CT-62 CAT interface cable 29.99
CT-69 6-pin modular - 8-pin mic jack adapter 29.99
EDC-6 Extra DC cord; plug & wire only 7.99
FNB-72 1000ma 9.6v nicad battery 60.99
MH-36E8J TTP mic 60.99
NC-72B Nicad wall charger 18.99
TCXO-9 TCXO unit, 0.5 ppm..... 99.99
YF-122C 500 Hz Collins CW filter 159.99
YF-122S 2.3 KHz Collins SSB filter 159.99
FT-100D MniHF/6/2/440/DSP/TT/CWfilt/TCXO/dec † *839.99
*Price w/instant coupon; coupon expires 9/30/02
FT-100D Pack FT100D/ATAS100/YSK100/MMB62 *1179.96
*Price w/instant coupon; coupon expires 9/30/02
FP-1023 23A switching ps w/fan, 25A surge ... 159.99
FP-1030A 25A ps, 30A surge w/meters 249.99
ATAS-100 HF/6/2/430 motorized mob ant .. *249.99
*Price w/instant coupon; coupon expires 9/30/02
ATAS-120 HF/6/2/430 motorized mob ant .. 329.99
ATBK-100 Antenna base kit; use w/base mt 89.99
CT-39 Packet cable 9.99
CT-58 Band data cable; Yaesu amplifier ... 29.99
CT-62 CAT interface cable 29.99
CT-69 6-pin modular - 8-pin mic jack adapter 29.99
FC-20 Automatic antenna tuner 269.99
MLS-100 Mobile speaker 45.99
MMB-62 Remote front panel mounting bkt 39.99
MMB-67 Quick release bracket 29.99
SP-6 External speaker w/filter 144.99
LL-5 Phone patch unit for SP-6 ..... 129.99
T-9021925 Extra DC cord 42.99
XF-117A 6 KHz AM filter .....† 99.99
XF-117CN 300 Hz CW filter .....† 99.99
Suggest dealer installation of filter in FT-100D
Only one optional filter may be installed
YH-77STA Open-air type stereo headphones 51.99
YSK-100 Separation kit 79.99
CT-20 Mic cable for use with MD-1C8 .....D 1.99
FAS-1-4R Remote antenna selector .....D 129.99
FC-1000 Wire auto tuner; 747/757II/767 ....D 129.99
FP-1023 23A switching ps w/fan, 25A surge 159.99
FP-1030A 25A ps, 30A surge w/meters 249.99
FTS-27 CTCSS decoder unit; orig FT-100 ....Δ 47.99
MH-31A8J Hand mic; FT-900 .....Δ 39.99
TCXO-2 TCXO unit; FT-990 .....D 49.99
TCXO-8 TCXO unit; orig FT-100 .....Δ 59.99
XF-110C 500Hz CW filter; FT-900 .....D 49.99
XF-117C 500 Hz CW filter; orig FT-100 .....Δ 69.99
YA-30 1.8-30 MHz broadband dipole ant 229.99
YH-77ST Open-air type stereo headphones ... 51.99
YS-60 1.8-60 MHz 2kw PEP wattmeter 129.99
YS-500 140-520 MHz 200w PEP wattmeter .. 109.99
Quadra System VL/VP1000 HF+6m amp/ps/tuner 3999.99
FRG-100B .1-30 MHz shortwave receiver ..† 549.99
FM Unit-100 FM unit..... 47.99
TCXO-4 TCXO unit 99.99
YF-110CN/XF-F 250 Hz CW xtal filter 144.99
YF-115C 500 Hz CW Collins mech filter 159.99
VR-120 .1MHz-1.2995GHz AM/FM hand/cell blkd † *109.99
*Price w/instant coupon; coupon expires 9/30/02
51R Clone/CT-35 Clone cable; VR-120 ..... 9.99
CSC-76 Soft case for VR-120 ..... 19.99
VR-120D .1MHz-1.2995GHz AM/FM hand/cell blkd . 209.99
51R Clone/CT-35 Clone cable; VR-120 ..... 9.99
CSC-76 Soft case for VR-120 ..... 19.99
EDC-15 DC adapter 38.99

Yaesu - continued AES Price

VR-500 .1M-1.3G AM/FM/SSB hand/cell blkd † *249.99
*Price w/instant coupon; coupon expires 9/30/02
VR-500 Pack VR-500/FNB-59/NC-60B *254.97
*Price w/instant coupon; coupon expires 9/30/02
51R Clone/CT-35 Clone cable; VR-500 ..... 9.99
ADMS-3 Windows programming software .. 39.99
CSC-72 Soft case for VR-500 ..... 19.99
EDC-5B DC adapter w/noise filter 26.99
EDC-6 DC adapter; plug & wire only 7.99
FNB-59 Nicad battery for VR-500 ..... 29.99
NC-60B Wall charger 14.99
VR-5000 .1M-2.6G base rcvr AM/FM/SSB/cell blkd *699.99
*Price w/instant coupon; coupon expires 9/30/02
VR-5000 Pack VR-5000/DSP-1 ..... *719.98
*Price w/instant coupon; coupon expires 9/30/02
DSP-1 DSP unit 119.99
DVS-4 Digital voice recorder 47.99
FVS-1A Voice synthesizer 43.99
E-736 DC cable for FT-736R .....Δ 16.99
FEX-736-220 220 MHz module; FT-736R ...Δ 309.99
FEX-736-1.2 1.2 GHz module for FT-736R ..Δ 539.99
AD-3 100w 2m/440 duplexer 52.99
FRC-4 DTMF pager unit; FT-5200/6200 .....D .99
FTS-7A Encoder/decoder; newer 290/690/790 Δ 39.99
MH-27B8 8-pin TTP mic; FT-5200/6200 .....Δ 65.99
FT-8900R 50w 10m/6m/2m/35w 440 FM Xcvr 469.99
CT-39 Packet cable 9.99
MEK-2 Mic extension kit 42.99
MLS-100 Mobile speaker 45.99
MMB-62 Remote front panel mounting bkt 39.99
FT-7100M 50/35w 2m/440 FM Xcvr/TTP *299.99
*Price w/instant coupon; coupon expires 9/30/02
FT-7100M Pack FT7100M/YSK7100/ADMS2G *359.97
*Price w/instant coupon; coupon expires 9/30/02
AD-3 100w 2m/440 duplexer 52.99
ADMS-2G Windows programming software 39.99
CT-39 Packet cable 9.99
MEK-2 Mic extension kit 42.99
MLS-100 Mobile speaker 45.99
MMB-60 Quick release mobile bracket 31.99
MMB-62 Remote front panel mounting bkt 39.99
T-9021810 Extra DC cable 12.99
YSK-7100 Remote separation kit 69.99
FT-90R 50/35w 2m/440 micro FM Xcvr .....† *319.99
*Price w/instant coupon; coupon expires 9/30/02
FT-90R Pack FT-90R/YSK-90 ..... *354.98
*Price w/instant coupon; coupon expires 9/30/02
ADMS-2E Windows programming software 39.99
MEK-2 Mic extension kit 42.99
MLS-100 Mobile speaker 45.99
RA-0131900 Extra mobile bracket 4.99
T-9021810 Extra DC cable 12.99
YSK-90 Remote separation kit 64.99
ADMS-2D Prog soft; 3000/8000/8100/8500 Δ 39.99
DVS-4 Digital voice recorder; FT-3000M .....Δ 47.99
FRC-6 DTMF pager; 2400M/2500M/7400H ..D .99
FTS-17A CTCSS decode unit; FT-3000M .....Δ 47.99
FTS-22 CTCSS decode unit; FT-8100R .....Δ 68.99
MH-27A8J TTP mic/modular plug; early 2500M Δ 60.99
MH-36C8J Extra TTP mic; late FT-2500M 60.99
MH-39A6J Regular mic for FT-8500 .....Δ 49.99
YSK-8100 Rem separation kit; FT-8100R ...Δ 69.99
FT-2600M 60w compact 2m FM Xcvr/TTP mic † *159.99
*Price w/instant coupon; coupon expires 9/30/02
ADMS-2E Windows programming software 39.99
MLS-100 Mobile speaker 45.99
MMB-48 Extra mobile bracket 16.99
T-9021810 Extra DC cable 12.99
FT-1500M 50w 2m FM Xcvr/TTP mic .....† *139.99
*Price w/instant coupon; coupon expires 9/30/02
ADMS-2F Windows programming software 39.99

Yaesu - continued

	AES Price
MLS-100 Mobile speaker	45.99
RA-0242900 Extra mobile bracket	9.99
T-9021810 Extra DC cable	12.99
FP-1023 23A switching ps w/fan, 25A surge	159.99
FP-1030A 25A ps, 30A surge w/meters	249.99
LF-1 Mobile 13A DC noise filter	26.99
MLS-100 Mobile speaker	45.99
SP-4 Mobile speaker	31.99
SP-7 External speaker D	40.99
VXR-5000VADC/Vertex 25w 2m FM rptr	1199.99
VXR-5000V/TA/Vertex 25w 2m FM rptr w/ps	1399.99
VXR-5000UCDC/Vertex 25w 440 FM rptr	1199.99
VXR-5000U/TC/Vertex 25w 440 FM rptr w/ps	1399.99
Repeaters require service dept. set-up; $80 minimum	
(COM) **ID-8** Auto morse code ID'er	69.99
VX VPL-1D/Vertex Rptr prog soft & cable	95.99

Accessory for 09-series

FNB-4A 500ma 12v battery; 09-series Δ	$ 62.99

Accessories for FT-26/415/416/530

CA-8 2 chg sleeves; NC-50/FT-416/530 D	$ .69
CSC-50 Vinyl case; 415/416/FNB25 D	.99
FBA-12 AA cell holder Δ	19.99

Accs for FT-23/33/73/411/811/470/911

CA-7 2 charging sleeves; NC-50/411E/470 Δ	$ 19.99
CLIP-1 Belt clip Δ	7.99
CSC-24S Soft case; FT-23/33/73 w/FNB-12S D	.49
CSC-28 Soft case; FT-23/33/73 w/FNB-12S Δ	4.99
CSC-35 Soft case; FT-411/811/911/FNB-17 D	.49
CSC-37 Soft case; FT-411 w/FNB-12S/14 Δ	16.99
FBA-17 AA battery holder Δ	19.99
FNB-12S 600ma 12v (5w) battery Δ	55.99
FNB-17 600ma 7.2v battery Δ	34.99
FTS-12 Encoder/decoder for FT-23/33/73 Δ	60.99
FTT-4 DTMF (TTP) unit for FT-23/33/73 D	1.99
MH-32A2B Compact lapel speaker/mic Δ	24.99
MH-34C2B Compact lapel speaker/mic Δ	29.99
NC-28B Extra wall charger for FNB-17 Δ	9.99
NC-34B Wall charger for FNB-14 Δ	9.99
NC-65B/NC-18B Wall charger for FNB-12S Δ	14.99
PA-6 Mobile DC adapter/cgr; FNB-14/17 Δ	31.99
YH-2 Lightweight VOX headset w/mic Δ	29.99
FT-50RD/41B 5w 2m/440 HT/FNB41/FTT-12 †	*209.99
*Price w/instant coupon; coupon expires 9/30/02	
ADMS-1E Windows programming software	39.99
CA-15 Charging stand; FT-10/40/50	27.99
NC-60B Wall charger; FNB-40/41/CA-15	14.99
CLIP-10 Spring loaded belt clip	7.99
CN-2 BNC to SMA adapter: FT-10/40 Δ	8.99
CN-3 BNC to SMA adapter: FT-50R	8.99
CSC-68 Soft case; FNB-41/FBA-15	16.99
CSC-69 Soft case; FNB-40 Δ	4.99
CSC-V10 Cordura soft case; FT-10/40/50	27.99
CT-27A Cloning cable	10.99
CT-30 Microphone Y adapter	10.99
CT-53 Packet cable	9.99
EDC-5B DC adapter w/noise filter	26.99
EDC-6 DC cord; plug & wire only	7.99
FBA-15 4-AA battery holder	19.99
FBA-21 6-AA battery holder	38.99
FEP-10 Earphone	9.99
FNB-41 600ma 9.6v (5w) battery	58.99
FNB-42 1100ma 9.6v (5w) battery	62.99
FNB-V47 1100ma 7.2v battery w/belt clip	55.99
PA-17 Battery cable extender	57.99
FTT-12 16-key keypad/dec/DVRS; FT-50R D	19.99
LCC-10C Leather case/belt clip; 50/FNB41/V47	31.99
LCC-10S Leather case/swivel; 50/FNB41/V47	31.99
MH-30C2B Speaker/mic; use CT-30 also	45.99
MH-34B4B Speaker/mic	30.99
MH-37A4B Earpiece/microphone	30.99

Yaesu - continued

	AES Price
NC-50 1-hour dual slot charger	92.99
CA-14 2 charging sleeves; NC-50	26.99
RH-1 Black rubber case protector	7.99
RH-1R Orange rubber case protector	7.99
VC-25 VOX headset	62.99
MH-29A2B LCD disp spkr/mic; FT-530/51R Δ	49.99

Accessories for FT-11R/41R/51R

CA-10 2 charge sleeves; NC-50/11/41/51 Δ	$ 14.99
CSC-61 Case; 11R/41R/FNB33/38/FBA14 Δ	4.99
CSC-62 Soft case; FT-11R/41R/FNB-31 Δ	.99
CSC-66 Soft case; FT51R/FNB33/38/FBA14 Δ	9.99
EDC-12 DC adapter; FT-11R/41R/51R Δ	29.99
FBA-14 AA battery holder Δ	19.99
FNB-31 600ma 4.8v battery Δ	29.99
FNB-33 1200ma 4.8v battery Δ	39.99
FNB-38 600ma 9.6v battery Δ	69.99
NC-55B Wall charger for FNB-31 Δ	4.99
VX-1R 500mw 2m/440 submini HT/lith ion †	*129.99
*Price w/instant coupon; coupon expires 9/30/02	
VX-1R Pack VX-1R/FBA-20/CSC-71	*151.97
*Price w/instant coupon; coupon expires 9/30/02	
ADMS-1E Windows programming software	39.99
CN-3 BNC to SMA adapter	8.99
CSC-71 Soft case for VX-1R †	16.99
CT-44 2-pin spkr/mic adapter	12.99
CT-53 Packet cable	9.99
EDC-15 DC adapter	38.99
FBA-20 Battery holder †	19.99
FEP-10 Earphone	9.99
FNB-52LI Extra 700ma 3.6v lith ion batt	36.99
MH-34B4B Speaker/mic	30.99
MH-37A4B Earpiece/microphone	30.99
NC-66B Extra 2 hour wall charger	18.99
VC-25 VOX headset	62.99
VX-5R 5w 6m/2m/440 FM HT/lith ion batt †	*259.99
*Price w/instant coupon; coupon expires 9/30/02	
VX-5RS Silver 5w 6m/2m/440 FM HT/lith ion	*259.99
*Price w/instant coupon; coupon expires 9/30/02	
MH-34B4B OR MH-37A4B FREE w/VX-5RS! Limited Time!	
ADMS-1E Windows programming software	39.99
CD-15 Charger stand (use with NC-72B)	29.99
CN-3 BNC to SMA adapter	8.99
CSC-73 Soft case	19.99
CT-27A Cloning cable	10.99
CT-44 2-pin spkr/mic adapter	12.99
CT-53 Packet cable	9.99
EDC-5B DC adapter w/noise filter	26.99
EDC-6 DC cord; plug & wire only	7.99
FBA-23 2 AA cell battery case	25.99
FNB-58LI Extra 1100ma 7.2v lith ion batt	69.99
MH-34B4B Speaker/mic	30.99
MH-37A4B Earpiece/microphone	30.99
NC-72B Extra wall charger	18.99
SU-1 Altitude/barometric pressure sensor	35.99
VC-25 VOX headset	62.99
VX-7R 5w 6m/2m/440/300mw 220 FM HT	369.99
CD-15A Rapid charger	20.99
CMP-460A Waterproof speaker/mic	49.99
CN-3 BNC to SMA adapter	8.99
CSC-88 Soft case	15.99
CT-91 Microphone adapter	10.99
EDC-5B DC adapter w/noise filter	26.99
EDC-6 DC cord; plug & wire only	7.99
FBA-23 2 AA cell battery case	25.99
FNB-80LI Extra 1300ma 7.4v lith ion batt	83.99
MH-57A4B Speaker/mic	30.99
SU-1 Altitude/barometric pressure sensor	35.99
VC-27 Earpiece/microphone	30.99
VX-150/Vertex 5w 2m HT/batt/cgr/16key TTP †	*129.99
*Price w/instant coupon; coupon expires 9/30/02	
ADMS-1F Windows programming software	39.99

Yaesu - continued

	AES Price
CN-3 BNC to SMA adapter	8.99
CT-27A Cloning cable	10.99
CT-44 2-pin spkr/mic adapter	12.99
CT-53 Packet cable	9.99
EDC-5B DC adapter w/noise filter	26.99
EDC-6 DC cord; plug & wire only	7.99
FBA-25 6 AA cell battery case	48.99
FNB-V57 1100ma 7.2v battery	70.99
FNB-64 Extra 700ma 7.2v battery	43.99
LCC-150/TT Leather case	23.99
LCC-150S/TT Leather case w/swivel	31.99
MH-34B4B Speaker/mic	30.99
MH-37A4B Earpiece/microphone	30.99
NC-72B Extra wall charger	18.99
VAC-400B 1-hour desk top rapid charger	56.99
VC-25 VOX headset	62.99

ANTENNA ROTORS

G-450A 10 sq ft antenna rotor/5-wire	*239.99
*Price w/instant coupon; coupon expires 9/30/02	
G-550 12 sq ft elevation rotor/6-wire	*279.99
*Price w/instant coupon; coupon expires 9/30/02	
G-800SA Med/hvy duty 450 degree 17sq ft/5-wire	*289.99
*Price w/instant coupon; coupon expires 9/30/02	
G-800DXA Med/hvy duty 17sq ft/presets/5-wire	*379.99
*Price w/instant coupon; coupon expires 9/30/02	
G-1000DXA HD 450 degree 23sq ft/presets/6-wire	*469.99
*Price w/instant coupon; coupon expires 9/30/02	
G-2800DXA HD 450 degree 34sq ft/presets/6-wire	*1039.99
*Price w/instant coupon; coupon expires 9/30/02	
Note: G-2800DXA comes w/40m (131') of rotor cable	
G-5500 11 sq ft azimuth/elevation rotor//2x6-wire	*559.99
*Price w/instant coupon; coupon expires 9/30/02	
GA-3000 Tower absorber joint; G-1000/2800	119.99
GC-038 Mast clamp; G-450/800/1000/5500	31.99
GC-048 Mast clamp; G-2800	47.99
GL-33 Mast adjustment plate	14.99
GS-050 50mm thrust bearing; mast 1¼-2"	31.99
GS-065 65mm thrust bearing; mast 1½-2½"	47.99
GS-232A Computer interface; DXA rotors	539.99
C-1000 Interface cable; GS-232A - SDX/G5500	29.99
GS-680U Universal self-adjusting mast bearing	99.99
Sep Kit Separation kit for G5500	23.99

See BELDEN for rotor cable

CONSUMER ELECTRONICS

VXA-200/16-SU Aviator Pilot II 5w air HH/baro	$399.99
FNB-53 Nicad battery pack; Yaesu FRS Δ	4.99

CLOSE-OUTS

ALI DM-340MVT 30A ps w/meters/35A surge	$169.99
ALI EDC-45 Quick charger; DJ180/280TH	79.99
AOR AR-8600B .53M-2.04G rcvr AM/FM/SB/cell blkd	799.99
AST Silver Eagle Final Edition amp desk mic	199.99
B&W ASW-90 500KHz-30MHz 90' rcv only ant	99.99
BUS 20-0600 Compact laser rangefinder 600	229.99
BUS 26-3652 3.6x52 night scope/illuminator	199.99
BUS 78-0200 4.5" reflector telescope	269.99
BUS 78-8000 8" Dobsonian reflector telescope	399.99
BUT 10/11 10/11m butterfly beam	129.99
CEL 11011 Nexstar 8 telescope	1499.99
CEL 11015 Celestar 8 telescope	1099.99
CEL 11032 NexStar 5 telescope w/tripod	1049.99
CEL 21072 Firstscope 80 EQWA refractor telescp	249.99
CMT CHF-412 40/15/2m 28" BNC duck; FT817	59.99
CMT CHF-816 80/10/6m 28" BNC duck; FT817	59.99
CMT CYA-2412 2.4G 12el 15.5db 2' 6" bm N beam	129.99
CMT Z-750 2m/440 2.1/5.5db 39" theft resistant	59.99
COB 18WX ST Sound Tracker AM Mob CB w/WX	59.99
COB 25NW ST Night Watch Sound Tracker AM Mob CB	79.99
COB 29NW ST Night Watch Sound Tracker AM Mob CB	89.99
CUT HP-7AF 7AH gel-cell w/2.5 hr fast cgr	69.99
EME EVO-6550 2nd 900M camera; EVO-6500	49.99

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

Close-Outs - continued

	AES Price
GAR GPS-12CX Color GPS receiver	199.99
GAR GPS-V Turn-by-turn navigation GPS/soft	449.99
GAR NavTalk Analog cell phone/GPS combo	299.99
GRA KCT Kansas City Tracker sat package	229.99
GRA KCT/T Kansas City Tracker pack/KC Tuner	329.99
HEI BM-10-I Boom mic/headset; Icom	59.99
HEI HM-I Studio condensor mic; Icom	95.99
HEI PRO-5-4 Boom mic/sgl headset (HC-4)	79.99
HEI PRO-5-IC Bm mic/sgl headset/adapter; Ico	99.99
HYG 191S 160MK-88 160m kit for 188S	49.99
IAC 40m-S 40m half sloper 33' antenna	69.99
ICO AD-25 Battery charger adapter; 2GXAT	49.99
ICO BC-119-11 Desk cgr (adapter required)	69.99
ICO BC-119-31 Nicad desk cgr; IC-T81A	99.99
ICO BP-5 425ma 10.8v high power battery	79.99
ICO BP-8 800ma 8.4v long life battery	99.99
ICO BP-83 7.2v 600ma battery	79.99
ICO BP-84 7.2v 1000ma battery	99.99
ICO EX-1759 Infrared receiver	99.99
ICO FL-96 2.8 KHz 455 KHz IF SSB filter	149.99
ICO HM-90A Wireless microphone	119.99
ICO IC-2100H 50w 2m FM Xcvr/HM-98S TTP mic	149.99
ICO IC-2800H 50w 2m/35w 440 FM/9600	449.99
ICO IC-4008A Family radio svc blk handheld	79.99
ICO IC-775DSP Xcvr/ps/keyer/tuner/IF-DSP	3299.99
ICO IC-T81A 5w 6m/2m/440/1w 1.2 HT/batt/cgr	279.99
ICO PCR-100-12 .01-1300 am/fm PC Rcv/cell blkd	229.99
ICO PCR-1000-02 .5-1300 PC Rcv/cell blkd	299.99
ICO RS-746 Win remote control software	79.99
ICO UT-30 Tone encoder; IC-707	49.99
ICO UT-66 Voice synthesizer; IC-775DSP	83.99
ICO UT-84 Tone squelch unit; 2700H/821H	89.99

Close-Outs - continued

	AES Price
ICO UT-86 Tone squelch; IC-706 Mk II only	69.99
ICO UT-89 Tone scan/decode unit; IC-2350H	89.99
KAN Superfax II WX FAX program for IBM	49.99
KEN DRU-2 Digital recording unit; TS-950SDX	139.99
KEN SP-950 Ext spkr/audio filters; TS-950SDX	149.99
KEN TSU-5 Prog CTCSS decoder; TS-790A	59.99
KEN TU-7 Prog encoder; 2550/751A/TW4100A	54.99
KEN TU-8 CTCSS tone unit; TS-450S/690S	54.99
KEN YG-455C-1 500 Hz CW filt; TS-450/690	149.99
MAG Meridian XL GPS/plotter/detachable ant	99.99
MAH MH-A101 5/35w 2m FM amplifier	59.99
MAH MH-A102 5/35w 2m FM/SSB amp/pre	69.99
MAH MH-A103 5/50w 2m FM/SSB amp/pre	119.99
MAH MH-A201 5/45w 2m//5/35w 440 FM amp	119.99
MAH MH-A301 5/50w 2m HT dock boost amp/pre	115.99
MAH MH-C777 Plus Unv cgr/anly/cig; lith/ncd/nmh	69.99
MEA 07522 908B broadband nebula filter	79.99
MEA 20061 DS-60EC 60mm refractor telescope	169.99
MFJ 203 160-10m bandswitched dip meter	49.99
MFJ 394 Boom mic/single headphone	54.99
MFJ 442X SlimLine keyer only	59.99
MFJ 451X Morse keyboard interface only	64.99
MFJ 722 SSB/CW notch filter	49.99
MFJ 940A 10m ant tuner/SWR/wattmeter	59.99
MFJ 8400W 2m receiver wired	49.99
MFJ 9117B 9017 Xcvr/tuner/ps/ant pack	229.99
MID 74-210 FM/SAME WX/hazard alert radio/ps	59.99
MIR B-215G 2m FM/SSB 2/150w amp/pre	299.99
MIR B-510G Dlx 100w 2m FM amp for HT/mob	209.99
MIR B-1016G 2m FM/SSB 10/160w amp/pre	339.99
MIR C-5012G 220 FM/SSB 50/120w amp/pre	229.99
MIR C-5022G 220 FM/SSB 50/200w amp/pre	449.99

Close-Outs - continued

	AES Price
MIR KP-2/10M 10m mast mount preamp	139.99
MOT 53543 Camouflage TalkAbt 250 FRS	59.99
MOT 53544 2w grey TalkAbout Distance GMRS	149.99
MOT 53547 2w grey TalkAbout Distance DPS GMRS	169.99
MSQ EB-144 2m Eggbeater antenna	139.99
MSQ EB-432 432 Eggbeater antenna	129.99
MSQ FAST MAST 20' extended port alum mast	169.99
ORE JMR-828 Jumbo atomic clock/rem temp	69.99
PLY IS-IE50LU-C1 50-500 dlx 375/125w bulkhead	59.99
SGC 04-12 Remote kit w/swivel bkt & cable	99.99
SGC 04-13 Remote kit w/5-way mt & cable	199.99
SGC 52-32 Carbon telephone handset	69.99
VEC PS-50F 35A power supply, 50A surge	119.99
YAE FAS-1-4R Remote antenna selector	129.99
YAE FC-1000 Wire auto tuner; 747/757II/767	129.99
YAE FEX-736-220 220MHz module; FT-736R	309.99
YAE FEX-736-1.2 1.2 GHz module; FT-736R	539.99
YAE FNB-4A 500ma 12v battery; 09-series	62.99
YAE FNB-38 600ma 9.6v battery; FT-11/51R	69.99
YAE FTS-22 CTCSS decode unit; FT-8100R	68.99
YAE MH-27A8J TTP mic/modular plug; early 2500M	60.99
YAE MH-27B8 8-pin TTP mic; FT-5200/6200	65.99
YAE MH-29A2B LCD disp spkr/mic; 530/51R	49.99
YAE MH-39A6J Regular mic for FT-8500	49.99
YAE TCXO-2 TCXO unit; FT-990	49.99
YAE TCXO-8 TCXO unit; FT-100	59.99
YAE XF-110C 500Hz CW filter; FT-900	49.99
YAE XF-117C 500 Hz CW filter; FT-100	69.99
YAE YSK-8100 Rem separation kit; FT-8100R	69.99

Special Offer On Icom's R75 - FREE UT106 DSP with the purchase of every R75 thru 12/31/02.

USED EQUIPMENT

- **Fully Service Tested trade-ins**
- **10-day Trial** (pay only shipping charge)
- **30 Day Guarantee**
- **Full Trade-in Credit within 90-days on Higher-Priced New Equipment**

DEMO EQUIPMENT

- **Fully Serviced Tested New Demonstrator or Display Equipment**
- **Repacked in Original Cartons**
- **Manufacturer's Warranty**

Please be aware that there may be instant coupons that apply to Demo equipment which are not reflected in the displayed price. Coupons will be applied to your final total. Ask a salesman for coupon availability. Used Equipment policies do not apply to Demo equipment

These Equipment Lists are updated regularly on the web
www.aesham.com

LOCATION CODES (m) Milwaukee 1-800-558-0411; (c) Cleveland 1-800-321-3594; (f) Orlando 1-800-327-1917; (v) Las Vegas 1-800-634-6227

USED EQUIPMENT

A (+) at the end of the equipment description indicates there are additional options included.
**** Indicates item selling "as-is"**

ADI
AT201HP 5W 2M HT 79.99c
PCA600 CIG LIGHTER CORD ..14.99f

ALINCO
DJS46 FRS RADIO 39.99m
DJX2000T WIDEBAND RCVR399.99f
EDC6 CHARGER 9.99m

AMERITRON
AL800 1.2KW HF AMP/10M 1,299.99c

AOR
AR16B WIDEBAND RCVR 159.99m
AR3000A DLX WIDEBAND RX 759.99cv
AR8200 WIDEBAND RCVR ...349.99m
AR8200B RCVR/CT2800+...429.99c
AR8600 WIDEBAND RCVR ...695.99v

ASTRON
RS35M 25A PWR SUPPLY 129.99m

B&K
820 DIG CAPACITY METER .199.99m

BUTTERNUT
CPK1 COUNTERPOISE; HF9VX 116.99c

COBRA
148NWST CB XCVR.....144.99f

COMM SPEC
ID8 AUTO MORSE CW ID BOARD.59.99m

COURIER
M54 VHF HT 151.625.....79.99m

HEIL
CC1T TENTEC ADAPTER.....19.99f

HYGAIN
AR40 ROTOR.....199.99m

ICOM
AD15A CHARGE ADAPTER.....19.99f
AD28 ADAPTER 14.99c
AD56 BATTERY ADAPTER.....9.99cf
AT150 100W AUTO TUNER ...289.99m
BC110A CHARGER.....19.99f
CP18 CIG/LTR CABLE (R3).....24.99c
ICT22A HT/NO MANUAL.....74.99m
IC2100H 2M XCVR.....89.99m
IC271A 2M XCVR.....549.99m
IC575A 10W 6M/10M 599.99v
IC707 HF XCVR.....399.99m
IC728 HF XCVR.....489.99c
IC728 HF XCVR/FL100.....499.99v
IC729 HF/6M XCVR/FM.....699.99cf
IC729 HF/6M XCVR/FM+.....699.99m
IC735 HF XCVR.....499.99mf
IC735 HF XCVR/EX243 .....509.99v
IC738 HF XCVR.....599.99mc
IC746PRO XCVR 1,599.99m
IC751 HF XCVR.....499.99m
IC756 HF XCVR.....1,199.99m
IC756PRO HF XCVR 1,449.99m
IC761 HF XCVR (ROUGH).....649.99c

ICOM continued
IC820H 2M/440 (SCUFFED) ..679.99c
LC117 CASE/IC2GXAT.....15.99m
LC147 CASE.....19.99m
R71A SWL RCVR 399.99mf
R71A SWL RCVR/EX310 .....419.99m
R7100 COMM RCVR 899.99c
R75 SWL RCVR 439.99f

JPS
NIR10 DSP NOISE FILTER.....149.99m

KENWOOD
AT50 AUTO TUNER 259.99c
BC19 CHARGER.....51.99f
MC50 4-PIN MICROPHONE 69.99f
PB36 BATTERY.....9.99m
PG2Y DC CORD.....29.99f
PG4M 18 FT. EXT CABLE.....19.99m
PS30 POWER SUPPLY 119.99m
PS33 POWER SUPPLY 119.99c
PS40 20A SWITCHING PS.....124.99f
PS50 POWER SUPPLY 169.99c
PS53 POWER SUPPLY 179.99c
R5000 RCVR/SCRATCHED...449.99m
R5000/VC20/VS1/SCUFF 469.99m
R5000 RCVR/2 FLTS/VS1+..599.99v
R5000 SWL RCVR 499.99mc
R5000 VC20/ROUGH 449.99m
SP23 SPEAKER.....59.99c
SP230 SPEAKER 69.99f
SP50B SPEAKER 29.99f
SP950 SPEAKER 119.99c
TL922A 2KW HF AMP 1,299.99m
TMV7A 2M/440 XCVR 329.99c
TS450S/AT HF XCVR 599.99c
TS520SE/CW FILTER** 399.99m
TS570D(G) HF/YK88SN1 .....729.99c
TS570S HF/6M/YK88C1 .....819.99c
TS711A/VS1/SCUFFED 529.99m
TS711A/VS1/TU5/CHIPPED ..539.99m
TS711A 2M FM/SSB XCVR ...549.99f
TS811A 70CM FM/SSB 489.99mcf
TS811A/SCRATCHED.....469.99m
TS950S HF/4 FILTERS 1,279.99m
TS950SDX HF XCVR.....2,699.99m
TS950SDX/2 CW/SSB FLT ...2,774.99f

MFJ
1312B 12VDC ADAPTER 9.99f
1700B ANTENNA SWTCH 64.99m
206 ANT CURRENT PROBE 39.99f
212 TUNE-UP HELPER 63.99f
264 1.5 KW DUMMY LOAD 39.99m
407C ELECTRONIC KEYER 59.99f
5106 6PIN MINI - OPEN END ...3.99m
704 LOW PASS FILTER 39.99m
752C SSB/CW FILTER 69.99f
910 MOBILE MATCHER 15.99f
924 440MHZ TUNER 49.99f
931 ARTIFICIAL GROUND 49.99c

MIRAGE
B23 2/30W 2M AMP.....80.99f
B23G 2/30W 2M AMP 89.99f

MOTOROLA
53834 T5200 FRS HT.....29.99f

NCG
MH900PK EAR/MIC 29.99c

OUTBACKER
JOEY ANT/COUNTERPOISE ...199.99f

PALOMAR
PF300 AUDIO FILTER.....69.99m
PT340 TUNER-TUNER 79.99m

PREMIER
PMC200 DESK MICROPHONE..99.99mf

RF CONCEPTS
RFC 223 2M 2/30W AMP 80.99f

RMS
CN220 1.8-200 MHZ WM.....89.99f

SAMLEX
SEC1223 23A PWR SUPPLY ...79.99c

SGC
PS30 30/40 UNREG PS 319.99c
0410 SG2000/POWERTALK..1,479.99f
5415 SG235 SMARTUNER ...819.99m
5470 DC COAX ISOLATOR 49.99m

SONY
ANLP1 ACT. LOOP ANT 71.99f
ICFSW7600G RCVR.....144.99v

STANDARD
C108A 2M HT**.....99.99c
C1208DA 2M XCVR.....359.99c
C188A 2M HT**..... 99.99f

SVETLANA
811A TUBE**.....9.99f

UNIDEN
SC150 SCANNER** 117.99c
WASHINGTON CB RADIO 169.99f

VECTRONICS
CK200 DELUXE CW KEYER

YAESU
ADMS2G SOFTWARE/CABLE...31.99m
ATBK100 ANTENNA BCKT.....79.99m
CA10 2 CHG SLEEVES.....9.99mc
CSC29 SOFT CASE 14.99c
CSC62 SOFT CASE 99c
CSC67 SOFT CASE 99c
FBA3 CHARGING SLEEVE 19.99c
FL7000 HF AMP (LATE) 1,679.99mf
FP1030A POWER SUPPLY 199.99m
FP700 POWER SUPPLY.....179.99f
FTH7008 UHF BUS. BAND HT..89.99f
FT1000 (CORNER NICK) ...1,699.99m
FT1000D HF XCVR 2,999.99mf
FT1000D W/YF110CN 2,999.00m
FT1000MPMKV XCVR.....2,079.99m
FT3000M 70W 2M FM 159.99f
FT757GX MKII HF/NO MIC....409.99c
FT790RII XCVR/TONE.....309.99f
FT790RII XCVR/TU8 .....309.99f
FT817 HF XCVR/CSC83 .....509.99m
FT847 HF/6/2/440 XCVR 959.99cf
FT990 AC HF XCVR 1,129.99f
FT990 AC XCVR/SCUFFED .1,099.99m
MD100A8X MICROPHONE.....99.99m

YAESU continued
MMB54 MOBILE MOUNT 19.99c
NC26B CHARGER.....4.99m
NC34B CHARGER.....9.99m
PA17 BATT EXTNDR CABLE....39.99f
VR5000 DLX BASE RCVR.....559.99f
YH77ST HEADPHONES 34.99m
YM50 MICROPHONE 39.99m

DEMO EQUIPMENT

ADI
ARC12 SMART CHARGER.....59.99f
MQA999 RAPID CHARGER 57.99m
RBP612 12V 600MA BATTERY 39.99f
RBP612NMH 12V BATTERY....59.99f
SLC600L CASE; AT600.....12.99f

AEA
FAXIII PROG/PK900** 9.99f

AEA/TIMEWAVE
WEFAX256 WEFAX PROGRAM 116.99v

AIM
38384 12V 4A POWER SUPPLY34.99m

ALINCO
DJS46T FRS/NICAD/CHGR.....49.99m
DJV5TH 2M/440 HT.....188.99v
DJX10 RCVR.....279.99m
DJX2T RCVR 199.99mv
DJX2000T RCVR.....449.99m
DJ296T 220 HT 161.99v
EBP18N 5W BATTERY 52.99f
EBP35N BATTERY 75.99c
EBP36N BATTERY 61.99v
EDC34 DESK CHARGER 69.99m
EDC60 QUICK CHARGER.....71.99v
EDC63 CHARGER.....24.99v
EDX2 AUTO-TUNER.....287.99v
EME13 HEADSET.....63.99m
EMS14 MICROPHONE 99.99m
EMS51 HEADSET.....34.99m
EMS54 MIC; DR140,605 .....55.99v
ESC18 CASE 9.99m
MB110 BRACKET 17.99v

ALPHA DELTA
DELTA 2 ANTENNA SWITCH 44.99f
VRC2 TUNED PORT SPEAKER.89.99c

AMECO
HP300T HIGH-PASS FILTER....10.99fv
P12T 12V AC ADAPTER 8.99c

AMERITRON
AL572 1.3KW HF AMP.....1,169.99f
AL800H 1.5KW HF AMP.....2,159.99m

AMERITRON
ARB700 AMPL RELAY.....24.99f
ARB702Y AMPL RELAY.....34.99m
AWM30 3KW SWR/WATTMETER 124.99m
QSK5PC T/R SWITCH BOARD 195.99v
RCS8V REMOTE ANT SWITCH.125.99f

ANTENNA SPECIALISTS
AP143 2M ON-GLASS ANT 62.99c

ANTENNAS AMERICA
HVA146 2M DECAL ANTENNA 59.99m

AOR
AR16B WIDEBAND RCVR 179.99mv
AR3000A WIDEBAND RCVR .909.99f
AR3000A RX/NO ANT 899.99m
AR8200B WIDEBAND RCVR .429.99m
SDU5500 SPECTRUM DISP ...989.99v
TDF370 DSP UNIT 299.99m

ARRL
300 13-14 CODE TAPES 3.95v

ASTATIC
TUG9D104 MIC/NO BOX 84.99m

ASTRON
RS4L POWER SUPPLY.....44.99v
SS30M POWER SUPPLY.....124.99m

AZDEN
HS03 HEADSET 39.99f
PTT01 PTT SWITCH.....12.99mf

B&K
114A MULTIMETER.....34.99m

B&W
AS160 160-20 TRAP DIPOLE ..139.99c
AS40 40-10 TRAP DIPOLE ...139.99cv

BAYDEN
FPA3 DC ADAPTOR 6.99m

BELDEN
9356 100'RG8U/PL259S.....80.99c

BENCHER
BY3 IAMBIC PADDLE (GOLD) 249.99m

BIRD
4240165 ADAPTER 19.99m
80F DUMMY LOAD.....2.99m

BUSHNELL
121025 BINOCULARS 89.99m
17-7351 7X35 BINOCULAR ...34.99m
78-8000 8". DOB.TELESCOPE.359.99m

CES
SSI68 PRIVATE PATCH.....199.99m

CHANNEL MASTER
9515A ROTOR 99.99m
9521 ROTOR/REM CONTROL...89.99v

CHEROKEE
AH27F CB HT 107.99c
AH50SF 6M HT** 99.99m

COBRA
FRS200 FRS.....34.99m
10SOSKIT EMERG CB KIT.....39.99f
148NWST CB XCVR.....159.99m
29LTDCLASSIC CB XCVR 89.99m

COM SPEC
DTD-1 DTMF DECODER.....44.99c

COMET
CFX324A TRIPLEXER.....79.99f
GR5M TNK LIP MT W/COAX....60.99mv
M24M 2M/440 MAG ANT.....34.99m

COMET continued
RS730 HD VAN/SUV MOUNT ..26.99m

COURIER
PROCOMM/C COMMERCIAL HT ..99.99m
U22/A UHF HT 79.99mf
U22/B UHF HT.....79.99m
CP17L CIG LIGHTER CABLE ...21.99f

CUSHCRAFT
A148SK HARNESS.....39.99v
A3S 3EL TRIBAND BEAM.....386.99v
A44911S 70CM 11 EL. BEAM ..62.99c
R80 KIT FOR R7000.....75.99v

DAIWA
CN801H HF SWR/PWR METER..134.99c
CS401N SWITCH/N CONN 125.99f

DELORME
EARTHMATE GPS SETUP 99.99m

DIAMOND
K400 HATCH/TNK MOUNT 35.99v
K540KM MIR/LUG RK MT 53.99v
K550KM LUGGAGE RK MT.....62.99v
K601M SO-239 MOUNT 62.99cv
K601NMO NMO MOUNT 59.99v
MX62M HF/VHF/UHF DUPLEXER 69.99m
MX72H 2M/440 DUPLEXER....39.99m

DIGIMAX
D500 COUNTER 109.99f

EMERSON
EVS5000 A/V EXTENDER 69.99m

GAP
LADDERMOUNT MT FOR RV ...71.99v
TITAN DX ANTENNA** 305.99f

GARMIN
ETREXSUMMIT GPS RCVR....224.99c
GPSIIIPLUS GPS RCVR 269.99m
GPS38 GPS RCVR 149.99f

GENESIS
TO5K THROAT/MIC 39.99m

GRONDIG
ETRAVVII SWL RCVR 114.99m
G2000A SWL RCVR 89.99m
MINIWORLD100 SWL RCVR....24.99m
SATELLIT 800 RCVR.....449.99fv
TRAVELLER II RCVR 44.99mc
TRAVELLER III RCVR 89.99c
YB300PE SWL RCVR 69.99m
YB400PE SWL RCVR.....134.99mfv

HEIL
AD1Y PROSET; YAESU 14.99v
BM55 MIC/HEADSET/HC5 .....62.99v
CC1K KENWOOD CABLE.....27.99v
GM5 GOLDLINE MIC/HM5 ....126.99v
HDAT HEADPH ATTENUATOR 5.39v
HMMIC HAND MIC; ICOM 52.99v
PRO5IC BOOMSET; ICOM 124.99c

HUSTLER
G71504 7DB VHF COMM ANT 179.99m
MO1 MAST/NEW/NO BOX 28.99m

This Used and Demo Equipment inventory is as of 9/10/02
A current list is available at www.aesham.com or Call Toll Free

HUSTLER continued
MO2 MOBILE MAST 27.99m
NMO MAG MT** 32.99f
HYGAIN
AR40 ROTATOR 249.99m
ICOM
AD51 CHARGE ADAPTER 9.99mv
AD81 ADAPTER 12.99m
AD81 CHARGE ADAPTER 12.99f
AD87 CHARGE ADAPTER 7.99m
AH7000 25-1300 MHZ ANT ...161.99c
BA12 ADAPTER 19.99f
BC119(11) DESK CHGR 62.99cf
BC119(31) NICD DESK CHGR ..89.99c
BC127A CHARGER 18.99m
BC135 CHARGER 69.99m
BP121 BATTERY 15.99v
BP132 BATTERY 79.99m
BP157 BATTERY 59.99c
BP173 BATTERY 124.99m
BP198 BATTERY 49.99m
BP200 BATTERY 76.99f
BP209 BATTERY 44.99m
BP5 5W BATTERY 71.99f
CK70 DC CABLE 35.99c
CP17L CIGAR ADAPTER 19.99m
CSWR10 SOFTWARE 40.99c
HM12 HAND MICROPHONE 67.99v
HM46 SPKR/MICROPHONE 39.99fv
HM77A MICROPHONE 109.99v
HM90A WIRELESS MIC 119.99m
HM92A MICROPHONE 89.99m
HM95 MICROPHONE 79.99v
HS10SA HEADSET 59.99m
HS51 HEADSET 84.99m
HS85 HEADSET 79.99m
ICQ7ABC 2M/440 HT 114.99mv
ICT22A HT/SPK-MIC/CP12 ...259.99v
ICT22A 2M FM HT 199.99mcf
ICV8 2M 5.5W FM HT 134.99m
IC2GXAT 2M 3W HT 189.99c
IC746PRO XCVR 1,709.99mf
IC756PROII HF+6M 2,672.99f
IC910H HF XCVR 1,079.99mf
LC137 CASE 34.99c
LC148 CASE 22.99c
MB65 BRACKET 29.99m
OPC184 POWER CORD 24.99m
OPC598 CABLE/AT180 ....65.99v
R10(05) HANDHELD RCVR ...269.99f
R3 WIDE BAND HH RCVR 314.99m
R8500(02) RECEIVER 1,349.99f
UT106 DSP MODULE 134.99c
UT28 DIG CODE SQUELCH 19.99f
UT63 TONE BOARD 14.99m
IOIOM PRESS
HK-3 LOGIKEY HOOK UP KIT 9.99v
K-3 LOGIKEY CW KEYER 116.99v
ISOTRON
20 20M ANTENNA 69.99f
JPS
NIR10 FILTER 169.99mf
KANTRONICS
HOSTMASTERII+ V3.4 SOFT ...80.99c
KAM98 TNC 359.99mv
KPC9612 UPGRADE ONLY 19.99m
KENWOOD
BC17 220V WALL CHG 9.99f
HMC3 VOX/BOOM MIC 53.99c
KNB7A BATTERY 69.99m
MB430 MOBILE MTG BKT 44.99c
MC52DM 8 PIN TT MIC 71.99mc
MC60A BASE MICROPHONE 134.99m
MC90 BASE MICROPHONE ..214.99mf
PB34 5W BATTERY 79.99f

KENWOOD continued
PB39 5W BATTERY 49.99m
PG3E CIGAR CORD 8.99m
PG4W PC SOFTWARE/CABLE ..49.99v
PG4X 13 FT. CABLE EXTN 62.99c
PS40 POWER SUPPLY 134.99mc
SMC34 SPKR/MICROPHONE ..34.99c
TH42AT 70CM HT 199.99m
TM642AD 2M/220 MOBILE 659.99f
VCH1 VISUAL COMMUNICATOR.359.99c
KOSS
GT/3 HEADPHONES 4.99m
LARSEN
KG144UDPL 2M GLASS MT 69.99c
KG2/70CXPL ANTENNA 89.99mv
NMO150TLM 2M ANT/TNK MT ..49.99v
NMO440C UHF ANTENNA 24.99m
POK MOUNT/CABLE 24.99m
LDG
MPIC TUNER CABLE; ICOM 3.99m
MAGELLAN
GPSTRACKER GPS 134.99m
MERIDIAN XL GPS 134.99m
0069038000 PC KIT 89.99m
MAHA
MHA103 5/50W 2M AMPLIFIER 99.99m
MHBP132 BATTERY 49.99m
MHBP8H BATTERY 59.99m
MHC777 CHARGER 44.99c
MHC888 CHARGER 53.99mv
MHSC803 ADAPTER 6.99m
MH101Y2 CHARGER 59.99m
MAXON
FRS114 FRS HT 44.99cf
GMRS21X/1W2CH/CG/+ 89.99c
MX49FX 49 MHZ XCVR 19.99mcf
PC50 40MHZ HT 19.99mc
MEADE
ETX882 TRIPOD 89.99m
773 HARDCASE/EXT70 ....64.99m
MAGELLAN
MERIDIANXL GPS 149.99m
MFJ
1024 OUTDOOR ACT ANT 114.99m
1026 NOISE CANCELLER 152.99c
1040B RCVR PRESELECTOR .89.99v
1118 DLX DC POWER STRIP ..67.99c
112 WORLD MAP CLOCK 17.99f
114B 220V 24HR CLOCK 49.99f
116DC 12HR, 12V CLOCK 8.99f
117 LED CLOCK 14.99m
118 24/12 HR JUMBO CLOCK ...22.99c
1214PC TNC 125.99m
1224 COMPUTER INTERFACE ..89.99m
1272MYH TNC/MIC SW 35.99v
1272MZ TNC/MIC SWITCH 35.99f
1278 TNC/PLAIN 229.99m
128 12/24H ATOMIC CLOCK ..49.99m
1285 MULTICOM 5-1/2 IBM ...14.99m
1289M MULTICOM 3-1/2 IBM 53.99mcv
1289W MULTICOM WINDOWS 53.99v
1290D SOFTWARE 19.99m
1305 5V AC ADAPTOR 9.99m
1701 ANTENNA SWITCH 44.99v
204B ANTENNA BRIDGE 71.99f
392 HEADPHONES 14.99m
4114 RECHARGABLE PWR PACK 59.99m
44 SCOPE TUNING ADAPTER ..13.99c
45B 128K RAM IC 9.99f
452 CW KEYBOARD 114.99c
490 KEYER/PADDLE COMBO ..164.99m
498X CW KEYBOARD KEYER ..134.99m
5063 MFJ TNC-ICOM 8P CBL ...9.99m
5080 MFJ TNC-YAESU 8P CBL .9.99m
5084 TNC/ICO 8-PIN 13.99mc

MFJ continued
5086 TNC-KEN/ALI 8-PIN CBL ..12.99v
5086YH KAM HF 8-PIN 12.99v
5383Y YAE INTERFACE CBL ...35.99v
6413 CHARGER 44.99m
641K BATTERY CHARGER 44.99cv
751B CW AUDIO FILTER 62.99c
817 SWR/WATTMETER 80.99c
9017 5W 17M CW XCVR 119.99f
9130B 30M PACKAGE 299.99m
924 440MHZ ANT TUNER 62.99v
945E ANTENNA TUNER 89.99m
MGE
HFS1 SPEAKER 7.99m
MAHA
MHSI1 DOCK ADAPTER 6.99m
MIDLAND
22430 THROAT/MIC; 75-510XLB.29.99m
74200 S.A.M.E WX RADIO 44.99m
75510 FRS RADIO 59.99cf
75510 FRS RADIO (NO CLIP) .49.99mf
75510XLB FRS HT 59.99m
MIRAGE
B215G 2M 2/150W AMP 299.99mf
B23 2M 2/30W AMP 89.99f
B23G 2M 2/30W AMP 119.99v
B2516G 2M 25/160 AMP 299.99m
B34 2M FM 2/30W AMP 63.99c
B510G HT/100W 2M AMP 188.99c
B55G 2M 5/50W AMP 99.99f
D1010ATVN 4/80 ATV AMP ..329.99m
KP1/10M 10M RX PREAMP ..114.99m
KP1/6M 6M RX PREAMP 116.99f
KP2/10M 2M PREAMP 159.99m
KP2/220 220MHZ PREAMP ..159.99m
MY4 YAE FT10/40/50 ADAPT 8.99f
RC1 REMOTE CONTROL 39.99m
MOTOROLA
50988 FRS HT 39.99m
53547 TALKABOUT GMRS HT .179.99m
NYE
330001 MASTER CODE KEY ..64.99f
OREGON SCIENTIFIC
BA812E WEATHER CLOCK 17.99m
WMR968 WIRELESS WX STA ...339.99f
WR3300 WX MONITOR 17.99f
WR3300 WX RADIO 14.99m
WR8000 WX/HAZARD RADIO .26.99f
WR8800 WX RADIO 26.99c
PALOMAR
RX200 RX NOISE BRIDGE 79.99f
PERIPHEX
FNB33 YAESU BATTERY 19.99f
PB25S/26S BATTERY 9.99f
PB34 BATTERY 49.99f
POUCH
P5 POUCH; DJ-S11T/196T 13.50v
5R POUCH; VR120/VX5 ....12.99v
PREMIER
PCA-YHF CABLE/8-PIN; YAE 8.99v
SPM400 BOOM MICROPHONE15.99v
SPM500 THROAT MICROPHONE 33.99m
SPM900 SPEAKER/MIC 9.99m
RANGER
RCI1000/G 151 MHZ COMM HT 79.99f
RCI1000/R 151MHZ COMM HT 79.99f
RCI2970DX 10/12M XCVR ...359.99f
RF CONCEPTS
223 2M 2/30W NEW 89.99f
RMS
CN220 HF-220MHZ METER ...89.99c
SANGEAN
ATS404 SWL RCVR 69.99c
ATS818 AM/FM/SW RCVR 159.99mf
ATS818ACS SWL RX/TAPE 199.99m

SGC
0401 SG2000 HF XCVR 1,439.99v
5296 SG500 12V HF AMP ...1,124.99v
5417 SG-231 SMARTUNER ...476.99cv
5418 SG237 TUNER/BOARD ONLY ..224.99m
7007 POWER CLEAR DSP 249.99m
SHAKESPEARE
495 MARINE ANTENNA MOUNT 15.99v
SOLARCON
GPK1 GND PLANE KIT 35.99c
SONY
AN102 ACT RX ANTENNA 69.99m
ICFB200 AM/FM HANDCRANK ..44.99c
ICFSW07 SWL RCVR 359.99mv
ICFSW100S SWL RCVR 314.99m
ICFSW12 SWL RCVR 89.99m
ICFSW30 SWL RCVR 69.99c
ICFSW33 SWL RCVR 69.99m
ICFSW35 SWL RCVR 80.99c
TE SYSTEMS
1412G AMPLIFIER 259.99m
TERK
LF20 AV EXTENDER 79.99m
TV42 DISH MT TV ANTENNA ...69.99m
TV50 AMPLFIED TV ANTENNA 71.99v
TIMEWAVE
ANC4 NOISE CANCELLER 179.99mcf
UNIDEN
BCT7 SCANNER 149.99m
BC147XLT SCANNER 80.99c
BC178XLT SCANNER 79.99m
BC248CLT SCAN/WX ALERT ...98.99c
BC60XLT1 SCANNER 80.99m
BC80XLT SCANNER 107.99c
MC1020 MARINE XCVR 124.99m
PC68LTW CB XCVR 89.99m
SC150 SCANNER 143.99c

VALOR
PHF6 58 IN. 6M WHIP 19.99m
PM144440BN BNC MAG MT ..19.99f
VAN GORDEN
8X6ST 6 FT. RG8X/PL259'S 9.99v
VANCO
HF24RS HEADPHONES 17.99m
PHW5 SPEAKER 5.99c
370052 DIG IT MULTIMETER ..17.99c
VECTRONICS
AT100 ACTIVE ANTENNA 64.99mv
HF600QSK AMPLIFIER 1,319.99m
HPF1 HIGH-PASS FILTER 14.99m
PM30UV VHF/UHF WATTMETER79.99v
VERTEX
VHF LMR HT/ NO CHGR 149.99m
VX200(1)X LMR HT/NO CHG ...199.99m
VX200(4)X LMR HT/NO BATT ...199.99m
VX200(4)X LMR HT/NO CHG ...279.99m
VIBROPLEX
100 ORIGL PRESENTATION ..239.99m
WEST MOUNTAIN RADIO
RB/NO/8C INTERFACE 53.99c
RIG BLASTER INTERFACE 124.99m
WINEGARD
LB2000 DUAL LNB 69.99m
W2AU
W2AU 1:1 HF BALUN 22.49v
X-10
SP-554A WIRELESS MOT DET ...26.99v
YAESU
G5400 ROTATOR 399.99m
ADMS2G SOFTWARE/7100 ....34.99c
ADMS3 SOFTWARE VR500 ....34.99m
CA10 CHARGER ADAPTER 11.99mv
CA7 CGR SLEEVE/SINGLE 8.99f
CSC67 CASE 16.99v

YAESU continued
CSC69 FOR FNB40 ....13.99m
CSC71 CASE 14.99m
CSC72 CASE 17.99c
CT26 MIC ADAPTER 14.99m
CT27 CLONING CABLE 9.99m
CT69 MIC ADAPTER 26.99c
EDC12 DC ADAPTER 34.99m
FBA15 BATTERY 14.99m
FBA20 BATTERY 17.99m
FNB31 BATTERY 41.99m
FNB42 BATTERY 56.99m
FT1000D DLX HF XCVR 3,779.99f
FT7100M XCVR 399.99m
FT840 HF XCVR 629.99m
MD100A8X DESK MIC 116.99v
MH34B4B SPKR/MIC 27.99c
MH37A4B SPKR/MIC 27.99m
MMB60 BRACKET 28.99v
NC55B WALL CHARGER 11.99v
NC66B 2 HR CHGR; VX-1R 14.99m
SP5 SPEAKER 129.99c
SP7 SPEAKER 35.99m
VC22 HEADSET 44.99m
VR120 AM/FM HH RCVR 149.99m
VR500 AM/FM/SSB HH RCVR.269.99mf
VR5000 DLX BASE RCVR 799.99m
VXA120 AIR BAND XCVR 207.99f
VX5R 5W 6M/2M/440 HT 299.99f
VX7R 6M/2M/440 300MW HT 329.99m
YA007FG ANTENNA 79.99m
YF112C 500HZ CW FILTER ...107.99v
YH1 HEADPHONES 34.99m
YSK100 SEPARATION KIT 69.99f
YSK7100 SEPARATION KIT 62.99c

A portion of the Used Equipment inventory in Milwaukee

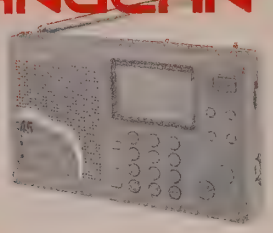
Please used these lists as a guide only...

Used and Demo Equipment Lists are compiled from an actual inventory as of 9/10/2002. However, due to turnover from daily selling and trading, the actual items listed may or not be available.

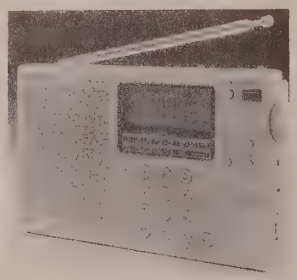
All of our stores are linked via computer which allows real time access to our ever changing inventory. For your needs, you may call any of our locations to check for availability or to discuss an alternative with one of our salespersons.

Used and Demo Equipment Lists are also available on our web site and are updated every week. (**www.aesham.com**)

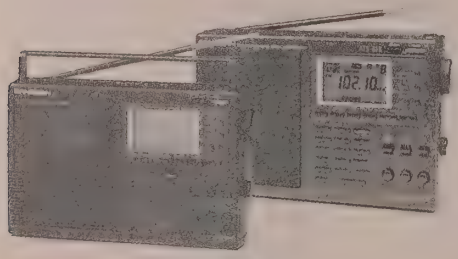
SANGEAN™



ATS-404 **Full Performance, Full Featured Digital, AM/FM Stereo Shortwave Receiver** Continuous coverage (continuously tunes all shortwave bands and any frequency in between). AM reception with 9k/10k switch, FM plus stereo with earphones. Keypad entry and auto and manual search buttons, 45 memory presets, auto memory scan. Illuminated LCD display, tone control, lockswitch. Dual time (12/24 hour) clock and adjustable sleep timer with new Human Wake System. Carrying case and stereo earbuds included. Uses four "AA" batteries. 6.5"w x 4"h x 1.25"d.. **$79.99**



ATS-505 **Professional Digital Multiband Receiver** AM/FM stereo/shortwave and SSB reception • Continuous coverage (tunes all shortwave bands and any frequency in between) • Auto memory scan (45 presets, plays each in sequence) • Auto preset system, determines all memory presets based on signal strength of station • Fine tuning • 9/10kHz switch • Lockswitch • Tone control • Local/DX switch • Dual time clock, adjustable sleep timer and Human Wake System with repeating beep tone (volume increases every 15 sec.). Includes carrying case and earphones **$129.99**



ATS-818CS *(left)* **World Band Receiver with Programmable Cassette Recorder** 16 bands, continuous coverage 50kHz to 30MHz. AM/SSB/CW/FM modes; stereo via headphones, 45 memory presets. Tuning methods: Direct input, auto or manual scan, memory recall, rotary dial. AM wide or narrow filter, tone and RF gain controls, signal strength and battery indicator. Programmable cassette recorder, play and record LED indicator, auto-stop feature. Clock with dual time display, alarm and sleep timer. Uses seven "AA" batteries (not included). Includes AC adapter and external antenna adapter. 11.5"w x 7.75"h x 2.75"d, 5 lbs **$229.99**

ATS-818 *(right)* **World Band Receiver** All features above, w/out cassette recorder **$179.99**

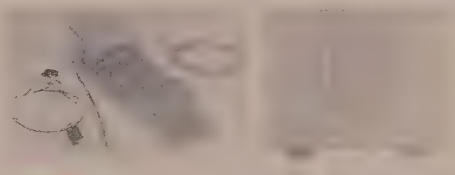
ATS-606A **Compact Digital All-Band** [illegible] **Receiver** *(left)* Continuous all-band coverage 15 kHz-30MHz. AM/FM (FM stereo with earphones). 54 memories, manual or keypad tuning, 1khz/step fine tuning, scanning, LCD display. Dual time clock and sleep timer. 5.75"w x 3.5"h x 1.25"d. **$149.99**

ATS-909 **FM-Stereo/MW/LW/SW PLL Synthesized Receiver** *(right)* Five tuning methods: Direct frequency, Autoscan, Manual, Memory recall and Rotary, 307 memories. Stereo via earphones, [illegible] reception. MW 9k/10k switch. AM wide/narrow [illegible] ter and FM mono/stereo selector. Dual time [illegible] three timers and sleep timer. Clock feature disp[illegible] 42 city times. RF gain/tone controls. Lock switch, recorder output jacks, battery and signal strength indicator. Uses 4 AA batteries or 6V DC; AC adapter incl. 8.5"w x 5.375"h x 1.375"d, 1.9 lbs... **$249.99**

DT-200V **Broadcast and TV Band Receiver** (left) Fits in shirt pocket or clips to belt. Covers AM and FM broadcast bands (FM stereo via headphone), plus the audio portion of TV channels 2 to 13. LCD display, up and down tuning buttons, auto-scan, 19 memories, automatic shut-off, built-in speaker. Belt clip and stereo earphones included. Uses two "AA" batteries 4.375"h x 2.625"w [illegible]

DRAKE

R-8B **Communications Receiver** Covers 10 [illegible] 30MHz (35-55MHz, 108-174MHz w/optiona[illegible] converter) • Dual VFOs • 1000 memories • Mult[illegible] function scan • AM/FM/RTTY/CW/LSB/USB modes • 5 voice bandwidth filters • Built-in receive pre-amp/attenuator and noise blanker • S-meter • Pass-band offset • Selectable AGC • Built-in speaker • Multiple antenna inputs • Sequential tuning • 3 selectable tuning step sizes • Keypad entry of mod[illegible] & bandwidth • Selectable sideband • [illegible] AM detector • RS-232 computer control • [illegible] recorder connections • Multi-voltage pow[illegible] • 13.5"w x 5.25"h x 13"d, 13 lbs ..... [illegible]



1590 **VHF Converter** *(left)* 35-55MHz and 108-174MHz ..... [illegible]

MS-8 **External Speaker** *(right)* for R-8B.... **$49.99**

YAESU

Yaesu prices beyond 9/30/02 were unknown at press date.

VR-500 **High Performance Mini** [illegible] General coverage 100kHz-[illegible] cell blocked) • CW, SSB, [illegible] USB. AM and FM wide/[illegible] modes • Includes AM/FM [illegible] HF shortwave up to [illegible] 5MHz. VHF/UHF TV bands, VHF AM aircraft band, and a wide range [illegible] commercial/public safety fre-[illegible] keypad entry • 1000 [illegible] • 100 "skip" [illegible] memories • 100 dual watch memories • Priority • Powered by 2 "AA" alkalines or 9-16V DC • 2.2"w x 4.2"h x 1"d, 7 oz..... **$249.99**

FRG-100B [illegible] **Performance Communications** Re[illegible]r Covers 50kHz-30MHz – CW, SSB, AM [illegible] FM optional. 50 tunable memory channels and two band edge memories. Multi-function scanning. Adjustable SSB carrier offset, selectable AGC rate, noise blanker, all mode squelch, RF attenuator, twin 12 and 24 hour programmable clocks with on/off timer and sleep-timer, CAT system for PC control. Bright backlit LCD readout with adjustable control. 120/240 VAC or 12-14VDC @ 1.2A 9.375"w x 3.5"h x 9.5"d, 6.6 lbs *(See Price Guide for optional filters and high-stability oscillator)*..... **$549.99**

VR-5000 **Multimode Scanning Receiver** Continuous frequency coverage from 100kHz to 2.6GHz (cellular blocked) • Direct keypad frequency entry and a wide variety of scanning capability • 2000 [illegible] memory banks with [illegible] receive • Bandscope [illegible] "Smart Search" auto-[illegible] • World clock with [illegible] .7A • 7.1"w x 2.75"h [illegible] **$699.99**

VR-120 **Mini Communications** [illegible] general cover-[illegible]ge receive from 100kHz–[illegible] 5MHz (cell blocked) on [illegible] and narrow modes; [illegible] AM and FM broadcast, [illegible]ve, VHF/UHF TV, VHF [illegible]aft band, and a wide [illegible]ge of commercial and public safety frequencies. • Rugged out-[illegible]ly case • Ultra-long bat-[illegible]y life • BNC antenna connec-[illegible] 4-button operation • Easy [illegible]access, wide-band coverage [illegible]ode" aids in quick tuning • Super [illegible]ple one-touch memories • Versatile 640 channel [illegible]ory system • Wide selection of scanning modes • 3.3"h x 2.3"w x 1"d, 6.9 oz **C/O $109.99**

VR-120D Same as the 120, with option for AC or DC power with optional adapter/cable... **$209.99**

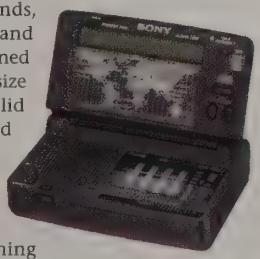
SONY

WORLD BAND RADIOS

ICF-2010 PLL synthesized • Range: 150kHz–30 MHz, 76-108MHz FM and 116-136MHz air band • 32-station memory • Manual, auto and memory scan tuning • SSB/CW and AM synchronous detection • Switchable IF bandwidth • Programmable timer • Built-in clock with alarm, standby and sleep timer • Requires 4.5V DC or three "D" cells • Includes 120V adapter, earphone, SW external antenna, connector and handbook • 11.3"w x 6.3"h x 2.1"d, 3.75 lbs..... **$359.99**

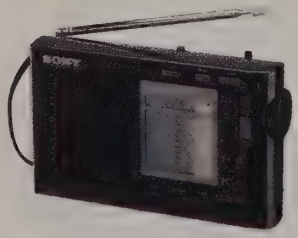
ICF-SW07 PLL synthesized • FM 76-108MHz, SW 1621kHz-29.999 MHz, MW 530-1620kHz, LW 150-529kHz • FM stereo at headphone jack • SSB/CW, AM synchronous detection • SW station call, my-memory tuning plus 4 other tuning methods: direct manual, scan or preset • 3000 frequency memories • One-push access to 8 major stations (BBC/VOA/DW, etc.) • Editable station labels • 24-city name/time display • Built-in timer • Clock with sleep timer and alarm • Requires 3 VDC or 2 "AA" batteries • Includes external active antenna module, AC adapter, stereo earphones, leather case • 5.3"w x 1.2"d x 3.6"d, 9.1 oz..... **$399.99**

ICF-SW11 Compact • 12 bands including FM stereo, MW, LW and SW bands 1–9 • Easy analog tuning with LED indicator • FM stereo headphone jack for private listening in noisy environments • DC in-jack for optional AC adapter • 6.5"w x 3.75"h x 1.3"d **$49.99**



ICF-SW12 11 bands, including FM, AM and SW bands 1–9 • Designed for travel – compact size with protective lid • World time clock and universal time coordinator to calculate time in cities worldwide • Backlit LCD display • LED tuning Indicator for precise center-frequency indication and accurate tuning • Built-in alarm with convenient snooze button • Requires 2 "AA" cells • 4.3"w x 3.1"h x 1.2"d **$99.99**

ICF-SW35 PLL synthesized, dual Conversion super hetrodyne • Range: AM (530-1710 kHZ), FM (76-108MHz) • FM stereo at headphone jack • Shortwave from 2250kHz-26.1MHz • UP/DOWN tuning buttons 1kHZ/5kHz tuning steps in shortwave • 50 memory presets (5 banks of 10 presets each) • 1 or 5 kHz step tuning on SW • Memory scan • Built-in digital clock with two wake times and 60-minute sleep timer • Dial illumination button, lock switch, attenuator • 2.5" speaker plus earphone jack • Includes cloth protector and SW guide • Requires 3V DC or two "AA" cells • 6.7"w x 4.5"h x 1.4"d, 16 oz **$89.99**



ICF-SW40 PLL synthesized • Analog/digital tuning • 14 bands • Range: LW/AM/SW (3850kHz-26.1MHz) and 76-108MHz FM (FM stereo-to-headphone jack) • 20 station memory presets • 1kHz step tuning • Built-in clock with dual standby function • 6.75"w x 4.25"h x 1.6"d, 15 oz..... **$129.99**

ICF-SW77 PLL synthesized • Electronic rotary tuning • Preset, 10-key direct, manual and scan tuning • 150kHz–30MHz and 76-108MHz (FM stereo-to-headphone jack) • 50Hz tuning steps • Clock display • 5-event programmable timer • Sleep timer • 162 memory presets with station name tuning • SSB/CW and AM synchronous detection • Backlit LCD display • World time scale • Large, 5"x 3" speaker • Requires four "C" cells • Includes 120V adapter, earphones, belt and wind-up antenna • 10.8"w x 6.8"h x 1.8"d, 3.3 lbs..... **$469.99**

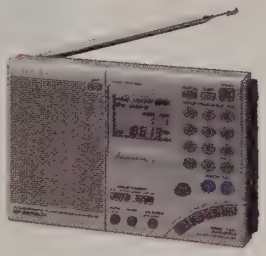
Look For This

NEW

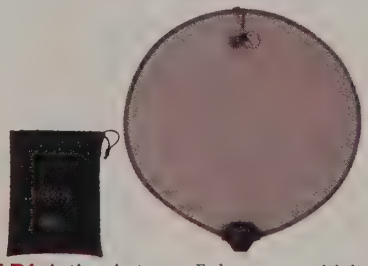
& Check Out AES' Latest Additions.

ICF-SW100S PLL synthesized • About the size of an audio cassette – ideal for travel • 24 city name and time display • Range: 150kHz–30MHz and 76-108MHz FM (stereo-to-headphone jack) • 1kHz step tuning • 50 station memory presets • Editable station labels • Auto scan, manual and 10-key direct access tuning • Built-in clock with sleep timer and dual standby • Includes stereo headphones, 120 VAC adapter, active antenna and soft carrying case • Requires 3V DC or two "AA" cells • 4.3"w x 0.9"h x 2.8"d, 8 oz..... **$349.99**

ICF-SW1000T PLL synthesized • 1 kHz step tuning • 130kHz–30MHz and 76-108MHz FM (stereo to headphone jack) • Built-in stereo cassette recorder with auto-reverse and timer record • SSB and synchronous AM detection • 32 memory presets • Built-in clock with alarm, dual standby and sleep timer • Requires 3VDC or 3 "AA" cells • Includes vinyl case, stereo earphones, hand strap and wind-up antenna • 7"w x 4.25"w x 1.6"d, 1 lb. **$399.99**



ICF-SW7600GR PLL synthesized • Manual and auto scan 1kHz step tuning • 10-key direct access tuning • 150kHz–30 MHz & 76-108 MHz FM • Dual conversion superhet • SSB/CW and AM synchronous detection • Multi-function LCD digital readout • Dial light and LED tune indicator • Built-in clock with sleep timer and dual standby functions • Record output jack • 9/10kHz MW tuning switch • External antenna jack • Large 3" speaker • Requires 6V DC or 4 "AA" cells • Hold button preventing accidental changes to presets • 100 station memory presets • World time/dual clocks • Includes vinyl case, wind-up antenna and handbook • 7.6"w x 4.75"h x 1.3"d. 1 lb., 5.5 oz..... **$179.99**



AN-LP1 Active Antenna Enhances sensitivity for clearer reception of even weak signals. • Light weight • Provides high sensitivity and noise reduction • Active antenna controller with rotary tuning • 19" loop that folds to 7" for portability • Easy to mount • Includes soft carrying case..... **$89.99**

GRUNDIG

G-2000A Porsche Design Shortwave Radio Designed for Grundig by F.A. Porsche, This radio has a titanium finish look with a genuine leather case that closes around the radio like a book and serves as a stand. • Ranges: (FM) 87.5–108MHz; (MW) 530–1710kHz; (SW) 2.3–7.4 and 9.4–26.1 MHz • Modes: AM, FM-stereo (with earphones) • Illuminated multifunction LCD display • Digital keypad and Up/Down manual tuning • 20 user-set station memorie • Clock with 12 or 24 hour selectable format, alarm (radio or buzzer) and sleep timer (10-90 minutes) • Built-in telescopic antenna for FM/SW and ferrite bar for AM • Includes a leather case, earphones, requires 3 AA batteries • 5.5" x 3.5"h x 1.25"d, 7.2 oz..... **Milwaukee only $99.99**

E-TRAV VII

E-Traveller Digital Radio Only 4.5" x 2.563" x 0.875" and weighing 5.3 oz. Sleek, design that fits into a pocket, briefcase or purse. Titanium color with black accents, combined with rich, rubberized side panels. Superior dual conversion superheterodyne circuitry for optimal sensitivity and selectivity. • (FM) 87.5–108MHz; (MW) 530–1710 kHz; (SW) 2–30MHz continuous coverage • Modes: AM, FM-stereo (with earphones) • Up/Down digital controls with auto-scan and manual tuning • 30 memories with scan • 12/24-hour selectable format clock, alarm and sleep timer • Built-in telescopic antenna for FM/SW and ferrite bar for AM • Includes a carrying pouch, 2 AA batteries, Shortwave Listening Guide..... **Milwaukee only $99.99**

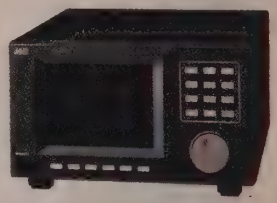
AOR

AR-8200 MK II-B All-Mode Wide-Band Modular HT Receiver • 500kHz–2040MHz (cell blocked) • 1000 memories • Alphanumeric display • FM-w, FM-n, super narrow AM, AM-w, AM-n, USB, LSB, CW • Programmable tuning steps • Detachable MW bar aerial with negative feedback • Computer socket fitted for control, clone and record • Write protect & keypad lock • Versatile band scope with save trace facility • Twin frequency readout with bar signal meter • Step-adjust, frequency offset, AFC • Temperature compensated crystal oscillator for greater frequency stability • Telescopic antenna • Optional cards for memory expansion, CTCSS squelch/search, tone eliminator, 20 sec. record/playback and voice inverter • Noise limiter • Attenuator • 1100mAh high-capacity NiCads, 4 AA internal cells, or 12V DC • 2.4"w 5.7"h x 1.0"d, 0.75 lbs **$549.99**

AR-3000AB All-Mode High Performance Profes-sional Monitor 100KHz-2036MHz (cell blocked) • 400 memory channels • FM-w, FM-n, AM, USB, LSB, CW • Tri-conversion IF stage • Scans 50 channels per second rate • RS-232C port for computer control • 4 search banks • Manual tuning dial • BNC antenna connector • Scans 20 channels per second • 5.4"w x 3.1"h x 7.9"d, 2.4 oz.. **$1099.99**

AR-8600 MK II-B Multimode Mobile/Base Receiver Use anywhere - mobile, base or portable. Powered from an external 12V DC power supply, optional DC lead from a 12V vehicle or from an optional internal NiCad pack. • All mode receive – including super narrow FM • Programmable tuning steps to 50Hz • RS-232 port (control software available from AOR web site) • Coverage: 530kHz–3GHz (cell blocked) • 1000 memory channels (20 banks) • True carrier reinsertion in SSB modes • Improved front end with RF preselection of mid-VHF bands • Step adjust frequency, AFC • Noise limiter and attenuator • Versatile band scope with save trace facility • Twin frequency readout with bar signal meter • Separate volume and squelch controls • Write protect and keypad lock • Programmable scan and search • RS-2332 computer port • Flash-ROM memory (no battery required) • Slot card sockets • BNC socket for 10.7MHz output • 5.9"w x 2.2"h x 6.9"d, 4.9 lbs..... **$899.99**

SDU-5500



Spectrum Display Unit Visually identify signals and relative strength • Works with AR-5000B/AR-3000AB, ICOM base and other receivers with a 10.7MHz IF output • 10MHz bandwidth – 10kHz to 2600MHz • 5kHz/30Hz resolution • White/blue mono LCD..... **$1099.99**

MFJ ENTERPRISES, INC.

752C SSB/CW Audio Filter Pull out stations from noise and interference. Peak, notch, low or high pass control helps eliminate hetrodynes and interference. Filters tune 300 to 3000Hz; bandwidth varies from 40Hz to almost flat; notches to 70dB. Switchable inputs for two radios. Uses 9 to 18VDC. 10"w x 2"h x 6"d **$89.99**

8100W Regenerative 10' wire makes world-wide stations come in loud and clear. Tune international shortwave, SSB/CW, RTTY and packet. Covers 75-13M SW bands. Vernier drive tuning. Uses 9V battery, earphones or plug-in speakers. 7"w x 2.5"h x 6"d, 1 lb..... wired **$89.99**

8121 World Band Receiver Receives FM, medium wave, long wave and 18 shortwave bands. Sony integrated circuit design provides excellent sensitivity and selectivity. Built-in telescopic antenna. LED tuning indicator. World time zone and frequency charts on back panel. Built-in 3" speaker. 4.5"h x 7"w x 1.5"d Works on 6V DC or 4 AA batteries **$39.99**

956 LW/MW/SW Preselector/Tuner Improves reception of signals from 150kHz to 30MHz. Boosts signals while rejecting images, intermodulation, other phantom signals. 2"h x 3"w x 4"d..... **$49.99**

Look For This

NEW

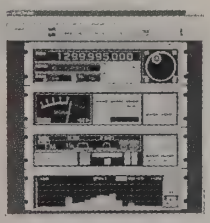
& Check Out AES' Latest Additions.

We accept I.M.P.A.C.® Government Credit Cards

ICOM

R-75 **HF + 50MHz Receiver** Covers a wide frequency range from 0.03-60MHz and includes 101 memory channels. All mode– USB, LSB, CW, RTTY, AM, S-AM and FM. Alphanumeric readout with digital bar S-meter. Conventional tuning plus numeric key pad for direct input. Features include high stability receiver circuit, superior dynamic range, 2-level preamp, noise blanker, synchronous AM detection, twin PBT capability, front mounted speaker, filter options and optional UT-106 DSP. Operates from 13.8V DC @ 1.1A, or supplied AC adapter. 9.5"w x 3.75"h x 9"d, 6.6 lbs..... **$599.99**

R-8500-02 **Wide-band All-mode Receiver** 0.1-2000MHz (cell blocked) with 10Hz resolution. All modes: AM, FM, WFM, SSB, CW and optional TV-R7100 TV/FM adapter. Direct keyboard entry. Versatile scan functions; 1000 tunable multi-function memories; 20 banks of 40 channels plus auto-write and skip areas. 20 scan edge memory channels store 10 sets of frequencies for programmed scan, plus priority. Selectable AGC, noise blanker, tone, squelch, record jack. Selectivity: 500Hz, 2.3, 6 and 15kHz. RS-232C interface. Voice synthesized read-out optional. 110/220V AC. 11.875"w x 4.875"h x 10.875"d, 16.5 lbs **$1499.99**



PCR-1000-02BON **PC Communications Receiver** Connect the 1000-02 to a lap/desktop IBM-compatible for reception of a wide range of frequencies. *NOW* includes the Bonito software! Listen to favorite stations in the background while running other applications. 100% PC hardware external. Includes everything needed to connect to a PC: power supply, speaker, antenna and cable • 0.01-823.999MHz, 849.000001-868.999MHz, and 894.000001-1300 MHz (cell blocked, guaranteed 0.5-1300MHz, only) • WFM, FM, AM, SSB, CW • 1000 memories per file • Requires Windows®3.1 or 95, Intel 486DX4, 10MB free space, 16MB RAM, FD drive, RS-232C (38400+ bps) serial interface, 640 x 480 display ... **$374.99**

PCR-1000-02 Same as above model without Bonito software ..... Closeout **$299.99**

CB RADIOS

148NW ST **Full Featured AM/SSB Mobile CB Radio** 12W PEP SSB RF output • 4W AM RF power (FCC max. allowed) • 120 channels • Dual conversion AM receiver • SoundTracker™ system • NightWatch™ dimmer control • USB/LSB/AM • Digital channel indicator • RX/TX indicators • Switchable noise limiter & blanker • RF-gain control • Hi/low tone switch • PA capable • SWR indicator • Instant channel 9 • 7.25" x 2.25" x 8.625", 6 lbs. **$179.99**

19DX III **AM Mobile CB Radio** Compact design • 40 channels • Combination S/RF meter • 4W RF output (max. allowed) • Instant channel 9 switch instantly switches from any channel to Emergency Channel 9 • TX indicator • CB/PA switch selects CB operation or PA operation • Mobile bracket • 4.563"w x 1.75"h x 7.25"d, 21 lbs **$49.99**

29WXNW ST **Full-featured Weather Band CB Radio with Illuminated Front Panel** 40 channels, AM • Instant channels 9 and 19 • 7 NOAA weather channels with weather alert tone • 4W RF power output • SoundTracker™ system • Tactile controls • Dimmer control • Switchable automatic noise limiter and noise blanker • SWR calibration • PA capability • NightWatch™ illuminated front panel • 7.2w" x 2.2h" x 8.6d", 6 lbs..... **$129.99**

HH-ROAD TRIP **SoundTracker® 40 Channel CB Handheld with Antenna** Keep in vehicle for 24-hour emergency access, to communicate between vehicles, and to receive the latest weather information from 10 NOAA channels. SoundTracker® system cuts noise up to 90% and 4W of power gives up to 4 miles range. High/low power switch reduces power consumption, extending battery life. Operates on 9 AA alkaline or NiCads or off vehicle battery with the included DC cord with cigarette lighter plug. Included magnet-mount antenna provides maximum range and flexibility. 6.75"h x 2"w x 1.75"d **$79.99**

uniden

PC-78XL **AM Mobile CB Radio** Full PLL-synthesized 40 channels • DSC, Dynamic Squelch Control • Instant channel 9 • Microphone and RF gain controls • Delta tune control - Fine tunes received signal and reduces interference • Noise blanker and automatic noise limiter • PA/CB switch • Dimmer control • TX/TX LED indicators • Antenna warning LED - lights when high SWR condition is present • 7.25"w x 8.625"d x 2.375"h, 4 lbs. 3 oz.... **$99.99**

PC-78LTW Same basic features as the PC78XL with the addition of NOAA weather channel reception with weather alert..... **$119.99**

PRO-520XL **Compact 40 Channel AM Mobile CB Radio** 4W • Instant channel 9 access • 4-segment S/RF meter • TX LED • LED channel indicator • RF gain • PA switch • Automatic noise limiter • 4.5"w x 6.75"d x 1.375"d, 1 lbs. 10 oz..... **$54.99**

RECOMMENDED ANTENNAS FOR CB

COBRA

HGA-1000 Magnet mount base loaded mobile antenna with coax and connector **$19.99**

HUSTLER

HQT A 55" top loaded whip with Mirror Mount bracket. Comes with 12' cable with PL-259 connector. Chrome with a white coil **$27.99**

HQ-27M A 55" top loaded whip with Trunk-lip Mount. Comes with 15' cable and PL-259 connector. Chrome with a white coil **$36.99**

LARSEN

NMO-27C Base loaded mobile, less mt. **$33.99**

NMO-TLP Low-profile trunk mount for NMO-27C. 17' coax and PL-259 ..... **$29.99**

NMO-MM NMO-27C magnet mount. Comes with 12' coax and PL-259 connector.. **$32.99**

SOLARCON

A-99 Base Station Antenna. Three-piece fiberglass design uses a half wave over a quarter wave section, and is tunable. Entire 17 ft. 8 in. length radiates producing about 3 dB gain **$64.99**

GPK-1 A-99 ground plane kit. Adds 30% more power gain and lower angle of radiation **$39.99**

WILSON

W-1000 5' base loaded mobile antenna. Available in three mount configurations. All come with 18' cable and PL-259 connector.

ROOF thru-hole mount..... **$57.99**
TRUNK mount **$65.99**
MAGNET mount..... **$76.99**

GENERAL MOBILE RADIO SERVICE (GMRS)

A two-way, personal, voice communication service to facilitate the activities of the individual's immediate family members available to an individual with the proper FCC license. Discuss commercial and/or family business activity. Higher powered 2 to 5W handheld portables allow communications over 1-5 miles. **Interstitial Frequencies:** 462.5625, 462.5875, 462.6125 462.6375, 462.6625, 462.6875 462.7125MHz **Primary:** 462.5750, 462.6250MHz **"Emergency:"** 462.6750MHz

FAMILY RADIO SERVICE (FRS)

For non-commercial use, FRS shares GMRS frequencies but doesn't need a license to operate. Uses include: camping, hiking, amusement parks, skiing, mobile caravans, any place where multiple people need to stay in touch. 100mw to 0.5W ratings of handhelds allow range of up to 2 miles.

KENWOOD

FRS RADIOS

UBZ-LH14BK FreeTalk™ 500mW • 14 FRS channels • 38 talk groups (CTCSS) • Privacy talk voice • 4 call ring tones CORDS (In-Range Detect System) • Battery saver and auto power off • Low battery alert indicator/beep • Works up to 40 hrs operation with 3 "AA" alkaline cells • Only available in black • 3.5"h x 2.25"w x 1"d..... **$79.99**

ICOM

FRS RADIO

IC-4008A 500mW • 14 channels; 38 group channels • "Call-" and "Smart-Ring" functions provide telephone-style ring with 10 different tones • Auto transponder function automatically checks station availability and alerts via function display • Fold-down antenna • Water resistant • Requires 3 AA alkalines • Black • 4.5"h x 2.25"w x 1"d..... Closeout **$79.99**

FRS/GMRS RADIO

IC-F21GM Perfect for sportsmen, families, clubs, hobbies – wherever you go. And, when you need more power than a typical FRS radio offers. Choose from 15 higher power GMRS channels, 7 channels are shared with FRS. Also communicate with any FRS radios on these channels. All channels are pre-programmed internally allowing operation right out of the box, only a simple license required. Apply on-line at the FCC web site. Complete instructions included in the box. Frequency coverage: 462.550-467.725MHz (UHF) • 4W, 2W, 1W (adjustable) • CTCSS and DTCS signaling for more privacy • Scanning and "Tone Find" seek active channels • Meets various MIL-STD requirements • Drop-in battery charger included • 2.1"w x 5"h x 1.5D, 10.6 oz..... **$149.99**

MOTOROLA

FRS RADIOS

53543 TalkAbout 250 (Camo) • 38 interference eliminator codes • Built-in hands free operation (VOX) – when used with optional audio accessory • Time-out timer • Transmit light • Audible low battery alert • Scan • Battery meter • LCD display • Audio accessory connector • Removeable belt clip • Operators manual • 3.75"h x 2.25"w x 1.375"d x 6.5"h with antenna • 1 year warranty ..... Closeout **$59.99**

56360 T6220 Talkabout® FRS 14 FRS UHF frequencies, 38 privacy codes • Simple menu • Backlit LCD and black case • Button beeps • Power-save mode • Time-out timer • Transmit LED • Talk group filter • 5 audible call alerts • Audio accessory connector • Lock button • Ring alert • Signal strength indicator • Scan • Uses "AA" alkaline batteries • Rechargeable ready with charging dock • Belt clip... **$49.99**

53834 T5200 Talkabout® FRS Radio • 14 FRS UHF frequencies, 38 privacy codes • Backlit LCD display • Rosewood-colored case • Power-save mode • Time-out timer • Transmit LED • 5 audible call alerts • Audio accessory connector • Lock button • Uses "AA" alkaline batteries • Belt clip **$39.99**

GMRS RADIOS

Common Features: 38 Interference eliminator codes • Built-in VOX operation (when used with optional audio accessory) • Scan capability • Voice-assisted programming • Low battery alert • Transmit light • Audio accessory connector • Removeable spring action 2.5" belt clip • Rechargeable battery • 10 hour charging adapter

53544 TalkAbout DX • 2W • 5.25"h x 2.5"w x 1.25"d, 11.1 oz ..... Closeout **$149.99**

53547 TalkAbout DXDPS Additional Features: • Alkaline battery tray (batteries not included) • 2W • 6.25"h x 2.5"w x 1.25"d, 11.7 oz... C/O **$169.99**

Cobra

FRS/GMRS RADIO

PR-950-2DX MicroTalk Pair of FRS/GMRS two-way radios operating on UHF/FM for clear reception up to 5 miles. 500 mW output for FRS, 2W for GMRS. • 22 channels • 38 privacy codes • 10 channel memory • 10 call tones • multi-function scanning • *VibrAlert*™ for silent incoming calls • VOX for hands-free operation • FCC licensing information for GMRS operation included • Requires 4 AAA batteries (not included) • 4.5"h x 2.5"w x 1.25"d, 5.4 oz..... pair **$99.99**

maxon

49MHz FM PERSONAL COMMUNICATORS

Low power, 1/4 mile average range • Dual conversion super-heterodyne receiver provides crisp, clear transmission • Use for group communications • Push-to-talk or voice activated - talk-to-transmit • No license required • Channels: 49.830MHz, 49.845MHz, 49.890MHz, 49.860MHz, 49.875 MHz

MX-49SX A single channel unit including a lightweight adjustable headset with retractable whip antenna and boom microphone with windscreen. Uses only one of first 3 channels (see above) • LED power indicator • battery charger jack • Range up to 1/4-mile • Uses two "AA" alkalines or rechargeable nicads • 5"w x 2.5"h x 1"d, 9 oz..... **$29.99**

MX-49FX The unique earphone and mic pick up voice vibrations from the ear canal for transmit audio and also provide received audio • Will not interfere with helmets • 5 selectable channels • Built-in antenna gives up to 1/8-mile range • Remote PTT button and channel selector. Uses 3 "AA" batteries. 5.5"w x 3"h x 1"d 6 oz..... **$49.99**

MX-49HX Great for motorcycling, snow mobiling, etc. The helmet adaptable headset has a whip antenna and boom microphone with windscreen • 5 selectable channels • VOX or PTT with on-unit or remote switch • Front mounted off/on, volume, VOX sensitivity and channel selector • Jacks for optional passenger intercom headset • Uses three "AA" batteries • 5.5"w x 3"h x 1"d, 6.5 oz.. **$49.99**

Look For This

NEW

& Check Out AES' Latest Additions.

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

New IC-R5

Get winning performance with ICOM's new IC-R5. Crisp, clear audio. Super wide tuning range. A large, easy-to-read LCD display with the visual information you need – like operating status, signal strength, battery indicator, and alphanumeric naming for the 1250 memory channels (including 200 auto-write scan memories, and 25 scan edge pairs). Weather Alert keeps you informed of any weather emergencies. All in a compact, weather resistant package. ICOM. Setting a new standard in monitoring technology. See your authorized ICOM dealer today and join the winning team.

Winning Performance!

Wide Band Receive 495 kHz - 1309.995 MHz*

AM/FM/WFM. Preprogrammed TV and Shortwave memories. Listen to AM & FM broadcast radio stations, police, fire, military, aircraft, various amateur bands, and more.

Weather Alert A first in handheld receivers!

The weather alert function helps keep you informed of any weather emergencies, so you can respond fast. Great for when you're out in the field! (USA version only)

1250 Memory Channels With alphanumeric naming

1000 memory, 25 scan edge pairs, 200 auto-write scan memory channels (Max.100 x 18 banks). Quickly tune to your favorite frequencies!

download frequencies right from the web

www.icomreceivers.com

AM/FM/WFM

Large Backlit Display
Shows the receive frequency, battery indicator, relative signal strength, etc.

PC Programmable
Connect to your PC for programming & cloning

Optional software (CS-R5) & cable (OPC-474) are required. USB type cable (OPC-478U) is also available.

Rugged Construction
Weather resistant construction make the 'R5 great for active outdoor operation

Large Function Keys
For user friendly operation

Internal Bar Antenna
For improved AM sensitivity

External DC Jack
For simultaneous charging and AC operation

Large Speaker
For crisp, clear audio

Small, Take-Anywhere Size
Dimensions: 2 1/4"W x 3 3/8"H x 1"D
Weight: 6 oz. approx.

IC-R5. Join the winning team.

100 kHz - 1309.995 MHz* • 1250 Memory Channels with Alphanumeric Naming • CTCSS & DTCS Decoder • Weather Alert • External Power Terminal • Internal Bar Antenna • Ni-Cd Power • Weather Resistant Construction • Auto Squelch • PC Programmable*

THE ICOM ADVANTAGE

Setting a new standard

www.icomamerica.com

ICOM®

This device has not been approved by the FCC. This device may not be sold or leased, or offered for sale or lease, until approval of the FCC has been obtained. *Cellular frequencies blocked; unblocked versions available to FCC approved users. ©2002 ICOM America, Inc. 2380 116th Ave NE, Bellevue, WA 98004, 425-454-8155. The ICOM logo is a registered trademark of ICOM, Inc. All specifications are subject to change without notice or obligation. R5—802

uniden

HANDHELD SCANNERS

BC-60XLT-1 **Handheld Scanner** *(left)* 30 programmable channels, 10 bands – cover 29-512MHz • LCD channel display • Programmable chain search • One-touch weather • Lockout • Memory backup • Keypad lock • Scan delay • Manual channel access • Track tuning • Keypad lock • Uses four AA alkaline or nicad rechargable batteries, or operates on AC with included 110V AC adapter • 2.625" w x 6.75"h x 1.5"d, 10.5 oz **$89.99**

BC-80XLT **Handheld Scanner** Looks similar to 60XLT • 50 programmable channels, 11 bands, 5 banks - cover 29-956MHz (cell blocked) • 5 priority channels • On-touch weather • Manual channel access • Bands search • Full frequency LCD display • Uses four AA alkaline or nicad rechargeable batteries, or operates on AC with included AC adapter • 2.625"w x 6.75"h x 1.5"d, 10.5 oz..... **$119.99**

BC-245XLT **TrunkTracker II Handheld Scanner** *(right)* 300 programmable channels, 12 bands including Aircraft and 800MHz (covers: 29–956MHz - cellular blocked) • Trunk tracking technology: trunk scan and search, truck lock out, trunk delay, and 10 trunk scan list • Programmable search • Memory backup • Manual channel access • Pre-programmed service search • Channel lockout • 10 priority channels • Rechargeable NiCad battery and wall charger • 2.5"w x 6"h x 1.75"d, 12.5 oz **$219.99**

SC-180B **Sportcat** *(middle)* Hear car and pit crews at auto races, the cockpit at air shows, or use it as a traditional scanner to keep up with emergency personnel. 100 programmable channels, 12 bands/800 MHz (cell blocked)/Air, 10 banks • 10 priority channels • Twin TurboScan™ and search • Manual channel access • Instant weather • Full frequency, alphanumeric LCD • Rechargeable NiCad and wall charger • Includes sports frequency guide, AC adapter, rubber antenna, belt clip and earphone • 2.5"w x 1.625"d x 6"h, 11 oz. **$169.99**

SC-200 **Sportcat** Same as above with 200 channels, cloning capability and CTCSS..... **$199.99**

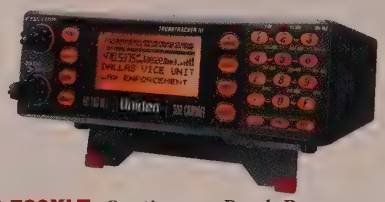
BEARCAT SCANNERS

BC-244CLT 30 programmable channels, 10 bands • Full freq. LCD • Channel lockout • Mem. back-up • Manual channel access • Alarm clock • One-touch weather • 8"w x 5.5"d x 3"h, 1 lb. 6 oz..... **$99.99**

BC-248CLT AM/FM alarm clock radio with 20 presets • 50 programmable channels, 10 bands • One-touch weather • Full frequency display • Auto squelch • Lockout • Memory back-up • Manual access • Delay • 5 priority channels • 10"w x 5.5"d x 3"h, 1 lb. 6 oz **$109.99**

BC-278CLT AM/FM Alarm Clock Radio with 20 presets • 100 channels, 12 bands • 800MHz coverage (cellular blocked) • One-touch weather with S.A.M.E. weather alert • Full frequency display • Auto squelch • Lockout • Memory back-up • Manual channel access • Programmable delay • Data skip key • Programmable search • Programmable service search • 5 priority channels • 10"w x 5.5"d x 3"h, 1 lb. 7 oz..... **$169.99**

BC-350A 50 channel, 11 band mobile/base scanner with Aircraft and instant weather • Super Turboscan™ @ 100 channels/sec. • Full frequency LCD display • Private channels, 20 programmable and scannable • Police channels • 10 programmable fire and emergency channels • Marine channels • Band search • Lockout channels • Mounting bracket, AC adapter, telescoping antenna cigarette and DC power cord • 5.25" x 6.8" x 1.625", 1.6 lb **$109.99**



BC-780XLT **Continuous Band Programmable Scanning Radio** AM/FM/WFM • 500 channels, 10 banks, 10 priority channels • Covers 25MHz-1.3 GHz (cell blocked) • Preprogrammed service searches • Full frequency, backlit, LCD display • TrunkTracker III • S.A.M.E. weather alert • SmartScanner™ • Clone feature • Alpha tagging • CTCSS/DCS • PC control • Base or mobile • Beep alert • Record every channel or every ID programmed (up to 1000 IDs) • 7"w x 6.56"d x 2.375"h, 41.96 oz..... **$349.99**

BC-895XLT **"Trunk-Tracker"** • 300 channels, 12 bands including Aircraft and 800 MHz, 10 banks • VFO control – covers 29-956MHz (cellular blocked) • 10 priority channels • TurboScan™ • One-touch weather with weather alert • Manual channel access • Built-in CTCSS • Trunk search • Scan lockout/delay • RS-232C port • Signal strength meter • Auxiliary tape output • Automatic store • 30 trunking channel indicator annunciators • 3-day memory backup • Programmable search • Lockout • 10.875"w x 3.625"h x 7.5"d, 3.5 lbs..... **$199.99**

BCT-7 **Bear Tracker 800** Pre-programmed with frequencies for highway patrol, D.O.T, local and county police, news, fire, aircraft and CB services. Selectable by state (except HI) • 12 bands • 100 channels • Highway patrol priority alert • Data skip • Weather scan • 13.8V DC or 110V AC • Mobile mount • 5"w x 7"d x 1.375"h, 1 lb 11oz . **$169.99**

ICOM

R-10-05 **General Coverage Pocket Scanning Receiver** 500kHz-1300MHz (cell blocked). AM, SSB, FM wide or FM narrow modes. Programmable tuning steps. On-screen spectrum display, 1000 non-volatile memory channels in 18 banks of 50 channels. Scan by bank, mode, or program. Alphanumeric characters can be entered to identify channels and banks. Noise blanker and auto noise limiter. Auto frequency control (AFC) • Easy-to-read, edge-lit display • 24-hr clock with timer • PC programming capability • Adjustable LCD contrast • Signal indicator • Power-saver • NiCads and wall charger (also will use alkaline or DC) • 2.3"w x 5.1"h x 1.2"d, 10.9 oz **$299.99**

R-2-06 **Communications Receiver** Wide frequency coverage from 0.495-1309.995MHz (cell blocked) in 9 frequency bands with 400 memory channels in 8 banks of 50 channels. FM, WFM and AM modes. **Features:** Quick, easy band switching • Tone squelch (CTCSS decode) • Offset monitor capability • Built-in attenuator • PC programming capability • Receiver-to-receiver data cloning • Multiple scan functions • Backlit LCD with timer • Priority watch function with beep alert • Channel indication • Automatic squelch • Up/down keys for AF level control • Low-battery indicator • Auto-power-off • MIL-SPEC 810 C/D/E, weather resistant • Includes 2 NiCads, charger, antenna, handstrap and belt clip • 2.875"h x 3.375"w x 1.0625"d, 6 oz **$159.99**

R-3-26 **Communications Receiver** Provides wide-band receive capability from 0.5–2450MHz (cell blocked). Includes 2" TFT color display which may be changed to mono to conserve battery power. Receive favorite TV shows, scan for wireless cameras like those in race cars. Use with a wireless camera to monitor babies, traffic, etc. Video/audio output terminal allows displaying to a large monitor or recording device. Signal strength and band scope functions assist in finding the action you want to hear. Includes 450 memory channels with alphanumeric names, CTCSS, attenuator, and more. A long lasting Li-ion battery offers easy charging, lightweight performance, and up to 27 hours of continual use on the mono LCD • PC programming capability • 2.4"w x 4.72"h x 1.28"d, 10.6 oz..... **$349.99**

Service Questions?
414-358-4087
Milwaukee, WI

Guest Speakers:

Charles Hargrove, N2NOV, NYC ARES DEC/RACES RO.
Come hear Charles relate his and his fellow amateurs' first on the scene experiences with amateur radio and the aftermath of the World Trade Center attacks on September 11, 2001.

H. Paul Shuch, Ph.D.(Dr. SETI), CFII, FBIS, Executive Director, The SETI League, Project Argus station FN11LH
Dr. Shuch, noted author and educator, travels the world making the search for life in space accessible to audiences as diverse as humanity itself. Armed with an accoustical guitar and a stack of slides, he mixes science and song to educate as well as entertain.

Get Ready For The

ORLANDO HamCation℠

Amateur Radio & Computer Show

2003

February 7, 8 & 9

AT THE CENTRAL FLORIDA FAIRGROUNDS
4603 West Colonial Drive Orlando, Florida

Fri. 12 noon to 7 pm (Swaps, Tailgate, Commercial 1A and 2)
Sat. 9 am to 5 pm Sun. 9 am to 1 pm

- **ARRL North Florida Section Convention**
- **150 Commercial Exhibits**
- **Over 400 Swap Tables**
- **Largest Tailgate Area In Florida**
- **Testing On Saturday**
- **Free Parking**
- **RV Camping On Premises** ($18 per night)
- **Fox Hunt** (5 pm Saturday)
- **Guest Friendly Central Florida Atmosphere**
- **Theme Parks Nearby**
- **Courtesy Talk-In On 146.76** (Backup Talk-In On 147.015 and/or 146.820)

Start off the year 2003 in Orlando, at one of the great hamfests. See the latest equipment. Shop for swap table deals. Find bargains at the largest tail-gating area in the Southeast.

There are base stations, mobile rigs, HT's, amps, antennas, call-letter hats, T-shirts, eye-ball QSO's, QSL cards, forums, food, computers, sun and fun. You'll think it's ham heaven.

Home of some of the best known theme parks on earth, Orlando has all you need to round out your visit. It will be a great vacation for you and the family. Make your plans now for the **2003 Orlando HamCation**.

Advanced tickets: **$8.00**
Tickets at the gate: **$10.00**

For current information please visit our web site at **www.oarc.org/hamcat.html** or call **407-923-8699**.

You can e-mail us at: **hamcation@oarc.org**

or write us at: **HamCation**
P.O. Box 547811
Orlando, FL 32854-7811

ORLANDO AMATEUR RADIO CLUB

The Orlando HamCation is a registered service mark of the Orlando Amateur Radio Club.

GARMIN

GPS-12XL **Personal Navigator™ for Extreme Outdoor Enthusiasts** 12-channel receiver with external antenna for fast, accurate position fixes in tough conditions like tree canopy and urban obstructions. Rugged, compact case ideal for boaters, hunters or hikers. 500 user waypoints with alphanumeric name and user comments. 20 reversible routes of up to 30 waypoints each. TracBack™ navigation turns a track log into a route back home. Nine waypoint alarms. Over 1000 track log points, position averaging, emergency erase, and cloning features. Up to 12 hours operation on 4 "AA's"..... **$219.99**

GPS-12CX **Personal Navigator™ with Color Display for the Outdoor Enthusiast** Nine built-in languages including French, German, Spanish and Portuguese. 2,048 track log points. Selectable position formats including MGRS and user-definable grid. Provides heading, track, sunrise and sunset, ETE, ETA and other calculations. User selectable audible settings, TracBack™. Up to 36 hours of operation..... Closeout **$199.99**

NAVTALK™ **Personal Navigator™/Cellular Mobile** Combines GPS with cellular technology into one handheld unit. During travel, location is displayed in real time on a built-in map. Send your exact position and have it displayed on another NavTalk unit. **Cell phone:** Customized phone book • One-touch speed dial • Built-in pager; • One-touch emergency dial (subscription required) **GPS:** Shows interstates with exit info, cities, airports, etc. Plug into a PC and download from optional MapSource™ CDs [U.S. Roads and Recreation (010-10215-00) or World Map (010-10215-01 **Special Order**)] . Closeout **$299.99**

RINO-120 **GPS-Enabled Handheld for FRS and high-performance GMRS** • Two-way communications up to 2 miles using FRS (up to 5 miles, using GMRS) • 0.5/1W (FRS/GMRS) • 14 channels, 38 squelch codes, and VOX • Voice scrambler • Vibration mode for "silent" calls • 12-channel, GPS receiver provides position accuracy of less than 10' when enabled • Peer-to-Peer positioning to transmit GPS location, showing distance and bearing • Navigation features include extensive waypoint storage, TracBack, multiple position formats and built-in trip computer • Basemap of the Americas (major cities, highways, thoroughfares, rivers, lakes, coastlines, borders, and railways) 8MB internal memory accommodates downloadable cartography from GARMIN's MapSource CD-ROMs • Uses 3 "AA's" • 8.5 oz..... **$249.99**

GPS-72 *(no photo)* Low-cost solution for land or marine navigation, designed to provide precise positioning using data from WAAS. • Built-in quad helix antenna • High-contrast, gray-scale display ("large number" option) • Backlit display/keypad • Permanent data storage • Water resistant • 500 name and graphic waypoints, 50 reversible routes • Lat/Lon, UTM, Loran TDs, Maidenhead, MGRS, and user grid formats • Anchor drag, arrival, off-course, clock and proximity alarms • 1 MB memory for loading MapSource™ points-of-interest • Trip computer with odometer, stopped time, moving/overall average, total time, max. speed • Auto track log • Celestial tables..... **$159.99**

eMAP DELUXE **Electronic Map** 12-parallel-channel GPS and internal patch antenna with basemap showing cities, interstates, exits, etc. • Large, backlit screen. • Zoom keys with unique rockerpad design for one-hand operation • Trip computer provides odometer, stopped/moving/total time, moving/overall average and max. speed • Map page with direction pointer, speed, time, distance/time to go and trip distance • Save up to 500 sites • 2000 track log points • Up to 12 hours on 2 AA's. Includes interface cable, 8MB data card, wrist strap and guide • 2.4" x 5.5" x 0.8", 6.7 oz..... **$209.99**

eTREX *(left)* 12-parallel-channel GPS receiver and internal patch antenna packaged in a waterproof case. Operating buttons on sides allow larger display. Simple menus and logical operations make it easy to mark position. • Navigation using compass or maps • Zoom keys for map page • 500 user waypoints with name and graphic symbol • 1 route with 50 waypoints • Resettable trip computer • Auto track log, 10 saved tracks to retrace a path • Up to 22 hours of use with 2 AA alkalines • 4.4"h x 2"w x 1.2"d, 5.3 oz..... **$119.99**

eTREX SUMMIT™ **Hiking Companion** *(right)* Similar to the eTrex but includes a barometric altimeter and electronic compass..... **$249.99**

GPS-III PLUS **Personal Navigator™** Dash mount. Features road maps without plug-in cartridges. Selectable vertical or horizontal screen display. Dedicated keys for zooming from 0.2–360 miles, diagonal panning, auto start/stop timer, average/max. speed recordings. Rocker keypad, backlit LCD display, full featured moving map plotting, user selectable navigation screens for compass or graphic highway guidance. Download data from MapSource CDs **$299.99**

STREET PILOT **Dashboard Mount** Built-in map of the Americas with state and country boundaries, lakes, rivers, cities, state and interstate highways and some local thoroughfares. Accepts GARMIN cartridges showing residential streets, addresses and points of interest. Large high resolution 240 x 160 pixel display • 3-level, bright, amber, backlit screen and keypad • Auto turn-by-turn guidance with manual route selections • Auto waypoint and route naming • Storage for 100 waypoints • Trip planning • Zoom key • Dashboard screen showing current trip segment, distance, direction • Clock and arrival alarms. Up to 16 hours on 6 AA's..... **$469.99**

ST PILOT III DL **StreetPilot III Deluxe** *(right)* Portable GPS with auto routing and voice prompts alerting to upcoming turns. Shows position on a detailed color map. Automatically calculates a route from current location and displays turn-by-turn directions. Included MapSource™ City Navigator™ software provides more map detail, and, with downloaded detail, look up points of interest and view address and phone information. Portable for use in multiple vehicles. Also includes: StreetPilot III satellite navigation system • Dash mount • 12V adapter cable with speaker • 128MB data card • USB programmer for faster map downloads... **$999.99**

GPS-V DELUXE North American turn-by-turn navigation with auto-routing for the shortest, fastest routes. Display prompts and audible alerts for turns, upcoming turns, course deviation, and distance to destination. Built-in, routable basemap provides detail for interstates, interstate exits (USA only), highways, North American rivers and lakes, plus commonly used metro streets. Maps from MapSource MetroGuide gives guidance to residential street-level detail. Look up services and points of interest. View address, phone number and map location. 500 user waypoints • 20 reversible routes • Trip computer with odometer, stopped time, moving/overall average or total time, maximum speed • Auto track log, 10 saved tracks • Operates on 4 AA batteries up to 25 hours • Permanent data storage • Water-resistant • Includes auto mount, cigarette lighter adapter, PC cable and City Select software with an all-unlock (no internet access required) • 2.32"h x 5.0"l x 1.62"w, 9 oz..... **$499.99**

Software compatible with some Magellan and Garmin GPS units can be found under "Multi Media" on page 89.

MAGELLAN
Navigation & Communications

The Meridian™ – Magellan's new premier line of rugged GPS handheld receivers, designed with serious navigators in mind.

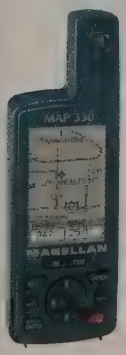
MERIDIAN™ GPS *(left)* The most affordable of the Meridian line, but low price doesn't mean sacrificing features. This powerful GPS promises to be your most trusted tool in the field. Expanded memory capacity for downloading maps with optional SD cards in 8, 16, 32 and 64MB • Large backlit display for easy map viewing • Rug-ged rubber armoring and high impact plastic for use in the harshest environments • Supports several languages including: English, French, German, Swedish, Finnish, Spanish, Italian, Portuguese, Dutch • Save Track-to-Route • Satellite status display • Built-in help • NorthFinder with sun/moon positions • Sunrise/set calculator • 2MB database of U.S. cities, interstate/state highways, political boundaries, major waterways and airports • Store 20 routes, 500 waypoints and 2,000 trackpoints • Vertical profile of track* • Horizontal profile* • Address Search ** **$219.99**

MERIDIAN™ GOLD *(middle)* All features of the Meridian GPS, with additional 16MB database of U.S. cities, highways, political boundaries, major waterways and airports **$299.99**

MERIDIAN™ PLAT *(right)* **Meridian™ Platinum** Possesses all features of the Meridian Gold and adds electronic compass and barometer that tracks barometric pressure like a weather station **$349.99**

** Requires MapSend™ Topo for United States*
*** Requires any version of MapSend Software*

Each Magellan GPS includes a powerful 12 parallel channel receiver, wraparound rubber armoring, "EZstart" operation, auto averaging and a waterproof design.



MAP-330 GPS The most memory in its class! Designed for the avid outdoorsman and mobile professional who demand supreme performance and functionality. The built-in 8-megabyte base map includes worldwide political boundaries and U.S. cities highways, major roads, national parks, waterways, and railways. And with 8 Megabytes of uploadable memory, you can plan detailed, cross-country routes without having to visit your PC every other state. View your navigation information on any of the four graphic screens presented on a large, high-resolution display. With a powerful 12-parallel channel receiver and quadrifilar antenna, the MAP-330 provides outstanding lock-on tracking in a vehicle, boat, on foot, etc..... **$249.99**

GPS-310 An affordable 12-parallel-channel GPS for fast precision fixes, staying locked onto GPS satellites in the harshest signal environments. This small, lightweight, rugged, waterproof unit will travel anywhere in the world and back again. Ready to go out of the box and incredibly easy to use. Features three user-friendly navigation screens, and saves 100 waypoints and 1 route with up to 10 reversible legs. Compatible with PC mapping software. Backlit display for nighttime use, and it floats! DGPS ready. Up to 20 hours operation on 2 AA batteries. 2"w x 6.25"h x 1.25"d, 6.8 oz **$99.99**

GPS-315 Navigates to 20,000 major international cities or brings you back to 500 user-entered locations. Nine screens show bearing, heading, distance and speed. A 12 parallel-channel receiver offers performance under tough conditions. Auto-averaging gives your position while standing. Also: 1200-point Track, BackTrack, best fish/game time, 10-year back-up battery, PC up/download and simulator. The 6.4 oz. unit comes in a waterproof, shock-resistant case. It runs on 2 "AA" batteries for 15 hrs. Works with mapping software **$149.99**

GPS-320 GPS Navigator with Nautical Navaid Data Base and Worldwide Cities A fisherman's full-featured personal navigator with a large database of cities and regional marine aids and memory to store up to 500 waypoints and/or landmarks. Four navigation screens show direction, path traveled, and distance. Other features include: 12-parallel-channel receiver, EZstart operation, 1200-point SmartTrack, BackTrack, best fish and game time, sunrise/set and map software compatibility. Uses 2 AA's, includes 10-yr back-up battery **$169.99**

All SporTrack models feature: 12-parallel-channel, WAAS receiver • Superior satellite tracking in dense forests including an advanced Quadrfilar Helix antenna • 2.3" x 1.4", easy-to-read display • Backlit screen and keypad • 500 waypoints • 20 routes • 2000 track points • 76 datums plus 1 user defined • Indefinite user data back-up, stored in non-volatile flash memory • Multi-language capability • Rubber-armored, impact resistant, waterproof, plastic case

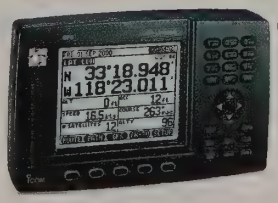
SPORTRAK Small, sporty, GPS system with worldwide database of major cities. Includes worldwide city points-of-interest locations. • 1MB built-in memory for downloading additional points • 9 screens: Status, Position, Nav 1, Compass, Nav 2, Plot, Road, Speed, Time • Alarms for proximity, arrival, anchor, cross track, error and GPS • Satellite status • Northfinder with sun and moon positions • Sunrise/set and best fish/game calculators • Up to 14 hours operation on 2 AA's • 5.6"h x 2.2"w x 1.3"d, 6.1 oz **$169.99**

SPORTRAK PRO All the features you'll ever need in a sporty, pocket-sized GPS with 32MB of memory • 9MB built-in database includes: interstate and state highways, major roads, parks, waterways, airports, cities, and marine navigation aids such as buoys, marinas, lighthouses, wrecks and obstructions • 23MB built-in memory for download of additional detailed maps • Full 3-D topo support • 7 user-configurable navigation screens: Map, Compass, Large Data, Position, Road, Speedometer and Trip Compass • Alarms for proximity, arrival, and anchor • Special features include save-track-to-route, satellite status display, built-in help, Northfinder with sun and moon positions, sunrise/sunset calculator, best fish and game calculator, horizontal profile and address search • Includes PC cable • Powered by 2 AA batteries for up to 14 hours • 5.6"h x 2.2"w x 1.3"d, 6.1 oz **$269.99**

SPORTRAK MAP A winning combination of features – including mapping – in a sporty, pocket-size GPS system • 2MB database with interstate and state highways, parks, waterways, airports and cities • 4MB built-in memory for download of additional detailed maps • 7 user-configurable navigation screens: Map, Compass, Large Data, Position, Road, Speedometer, Trip Compass • Full 3-D topo support • Alarms for proximity, arrival, anchor, XTE and GPS • Special features include save-track-to-route, satellite status display, built-in help, Northfinder with sun and moon positions, sunrise/sunset calculator, best fish and game calculator, horizontal profile and address search • Includes PC cable • Powered by 2 AA batteries for up to 14 hours • 5.6"h x 2.2"w x 1.3"d, 6.1 oz **$199.99**

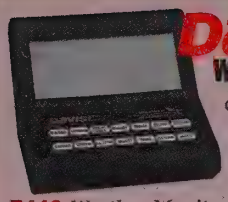
Software compatible with some Magellan and Garmin GPS units can be found under "Multi Media" on page 89.

Secure
www.aesham.com



ICOM

GP-270ML Fixed Mount Marine GPS Receiver Large LCD display • 12 channels • Full key pad • 500 user waypoints with names and descriptions • Marine database with 16,000 pre-programmed waypoints - all US buoys and lights • Built-in world map • 24-hour tide prediction for the entire world • Sun and moon phase predictions and set times for any spot on Earth • Track plotter • 30 reversible routes • Includes six languages • DGPS ready • Operates with LORAN TDs • 3.1" x 9.9" x 5.8", 3.5 lbs... **$399.99**



davis WEATHER STATIONS

Gives many measurements and the ability to download and graph data on your PC.

7440 Weather Monitor II® This weather station combines all weather monitoring function and 12 or 24 hour clock with date into one package. Shows them on an back lit, 1⅞" x 4¾" LCD display. **Temperature:** Outside, -50 to 140°F; Indoor, 32° to 140°F **Wind:** Direction in 1° or 10° increments • Speed to 175mph • High wind speed & wind chill to -134°F **Barometer:** Barometric pressure with memory recall and trend arrow **Humidity:** Inside 10%-90% (outside optional) • High and low **Alarms:** Temp., wind speed, wind chill, humidity, time and barometric trend **Features:** Scans selected functions • 115VAC • Battery back-up • Desk, shelf or wall • 5.25" x 5.875" x 3" **$269.99**

7859 External Temperature & Humidity Sensor For 7440; measure outside humidity, dew point and temperature. Includes 40' cable **$119.99**

7425 Weather Wizard III® Monitor indoor and outdoor conditions on a 1.875" x 4.375" LCD display. Measure daily & accumulated rainfall with optional rain collector. Optional Weather-Link software will process and store data through an IBM® compatible or Mac®. Includes anemometer, external temp. sensor, junction box, cables and AC adapter. **Temp:** indoor, 32°F to 140°F, outdoor, -50° to 140°F • Low or high **wind:** direction in 1 or 10° increments, speeds to 175mph, chill to -134°F • **Alarms:** temp., wind speed/chill, time • Scans functions • Metric or U.S • 115V AC • Desk, shelf or wall • 5.25" x 5.875" x 3" **$179.99**

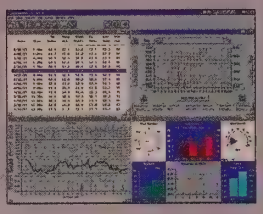
7852 Rain Collector II For 7440, 7425 and 7415; read both daily and accumulated rainfall in 0.01" increments. Comes with 40 ft. cable **$69.99**

7400 Perception II® Monitors indoor climate, looks similar to 7425. **Functions:** temp. 32°F–140°F • Barometric pressure w/memory recall • Humidity • Highs/lows recorded with time and date • **Alarms:** temp., humidity, time, barometric change • 12/24 hour clock with date **$139.99**

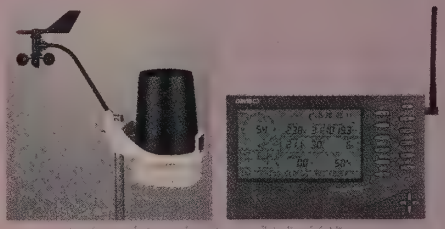
0281 Wind Wizard™ Wind Speed Indicator Handheld unit accurately measures wind speed from 0-60MPH in miles/hr, meters/sec, Beaufort. No batteries required **$47.99**

0271 TurboMeter™ Wind Speed Indicator Turbine suspended on sapphire jewel bearings responds to lightest winds • 3-digit display • Reads speed in miles/hr, knots, feet/min, meters/sec • Requires 3 "AAA" batteries **$139.99**

SOFTWARE



7862/7866 WEATHERLINK® Windows® or Mac platform. Links Perception, Weather Wizard, or Weather Monitor to a PC. Create graphs, calculate average conditions, generate summaries, analyze trends, etc....ea. **$149.99**



6150 Wireless Vantage Pro The latest in weather technology! Offers forecasting, on-screen graphing, and more. Quick view icons show the forecast at a glance - sunny, partly sunny, cloudy, rain or snow, while a moving ticker-tape displays. An innovative integrated and solar powered sensor suite combines rain collector, temperature and humidity sensors, and anemometer into one package. Typical wireless range is up to 150-200ft. For improved accuracy, the temperature and humidity sensors are housed inside a radiation shield which protects solar radiation and other sources of radiated and reflected heat **$539.99**

MIDLAND®

74-200 Digital Weather/Hazard Alert Monitor Provides 24-hour National Weather Service information from 7 NOAA channels for maximum capability up to 50 miles. Eight-character LCD displays up to 56 types of S.A.M.E. watches or warnings and monitors status of user selectable warning system. Weather Command button switches from alert mode to full monitoring. Clock displays time and date and has alarm functions. Telescoping antenna, external antenna input and alert device output jacks. Operates from 9-14VDC and 117VAC with supplied adapter. Accepts 9V battery for backup during outages. 7.75"w x 2"h x 5"d, 18 oz. **$49.99**

74-210 Digital Weather/Hazard Alert Monitor with S.A.M.E. The latest storm or hazard safety information only in counties you specify. Digital tuning provides pin-point accuracy for 7 NOAA frequencies, covering all US/ Canada weather channels up to 50 miles. The digital FM radio with five memory channels automatically switches to alerts when they occur. Digital readout also displays up to 56 types of watches and warnings as well as the radio frequency and time of day. Operates from 117VAC and 9-14V DC with 4 "AA" batteries for back-up. Accessory jack makes it easy to add an antenna, strobe light, pillow vibrator or any X-10 accessories. 7"w X 2"h x 5"d ..... Closeout **$59.99**

WR-30 Weather/Hazard Alert Radio with FM Radio and S.A.M.E. Alert function allows the user to set the weather radio to sound an alert when it receives a weather or hazard broadcast from NOAA. • Monitor up to 20 user-selectable areas • Digital front message displays 56 types of S.A.M.E. watches or warnings • Warning siren and voice alert • Alert status lights for *Statement-Watch-Warning* • FM radio, with 5-station memory, automatically switches to weather alert when NOAA broadcasts an alert • Built-in digital clock • Backlit display • Telescoping antenna and external antenna jack • Operates on AC power or 4 AA battery backup • 7.25"w x 5"h x 1.75"d **$59.99**

AMATEUR ELECTRONIC SUPPLY
5710 W. GOOD HOPE ROAD.
MILWAUKEE, WISCONSIN 53223
(414) 358-0333

NO. 0000

DATE _____ 19____

THIS CERTIFICATE ENTITLES _____

TO MERCHANDISE VALUED AT _____ DOLLARS $_____

PRESENTED BY _____

AUTHORIZED SIGNATURE

Gift Certificates For the Undecided

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

OREGON SCIENTIFIC

SECURITY ITEMS

PE-319 Pedometer with Personal Security Stay at ease while exercising away at home. This pedometer features a 120dB panic alarm for personal security and emergency. Displays elapsed workout time, distance walked and a 12/24 hour clock on its backlit 2-line LCD display . **$19.99**

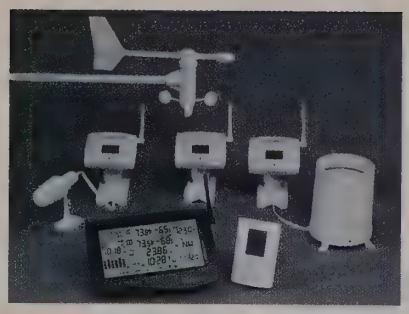
ALL HAZARDS WEATHER RADIOS

WR-102 Portable S.A.M.E. Weather Radio A handheld all-hazards weather radio that receives and displays alerts, watches and warnings that apply only to a local area using S.A.M.E. technology • Monitors 24-hour weather forecasts and alerts • Scans all NOAA channels • Monitors U.S. emergency alert system with auto activation • Dual LED power/alert indicator • Digital clock land alarm with snooze **$49.99**

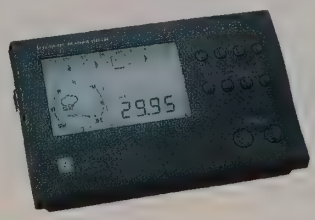
WR-196T Desktop S.A.M.E. Weather Radio AM/FM radio with ten memory presets • Digital tuning, including seven NOAA weather channels • Dual LCD display for clock and dot-matrix text message • Automatic audible and visual alert activation plus blinking LED warning • Standby mode to mute speaker • Digital clock, calender, alarm, and 5–120 min. sleep timer • Operates from 3 AA's or AC adapter • 6.75"h x 5.25"w x 0.875"d, 0.75 lb.... **$69.99**

WEATHER STATIONS

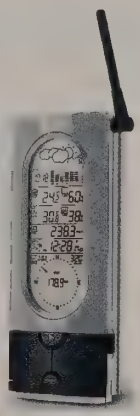
RGR-122 Long Range Rain Gauge Self-emptying and provides cumulative and daily precipitation totals for up to nine days. Its wireless, long range capability allows the collector to be placed up to 300 ft. from the main unit. The collection data is broadcast at 433MHz to the indoor base unit and displayed on an attractive easy-view 3.5"h x 1.5"d x 2.5"w LCD console. Includes indoor temp. gauge. Requires 2 "AA" batteries in both collector and main units **$59.99**



WMR-968 Cable Free™ Weather Station Innovative wireless outdoor sensors with 300 ft. range operates on solar power for simple installation and sophisticated ease. Track and record over 20 separate weather conditions by a press of the touch-sensitive jumbo LCD display screen **$399.99**



WM-918 Complete Weather Monitoring Station Monitors over 20 weather and environmental conditions. Sensor range up to 40'. Self-dumping electronic rain gauge, outdoor temp. and humidity sensor, anemometer (wind speed/direction), and all wiring. Desktop control panel displays clock, calendar, alarm, and weather. Also features weather forecasting displaying local 12/24-hour forecasts. Uses 8 AAA batteries, AC adapter included. 7"l x 4.25"w x 1.5"h, 14.8 oz **$229.99**



WMR-112A CableFree™ Weather Station Uses innovative, wireless, outdoor sensors for simple installation. Operates on 433MHz at a 300' range from remote sensors. • Measures outdoor temperature (-4°F to 140°F) and relative humidity (25%–95%) • Measures indoor temperature (0°F to 122°F), relative humidity (25%–95%) and barometric pressure (17.27 to 31.02 in.Hg) • Indoor touch-screen console, wall mount or desktop • AC adapter • Requires 12 "AAA" and 6 "AA" batteries (not included) • 7.75"h x 3.5"w x 1.4"d **$199.99**

OTHER WEATHER PRODUCTS

JMR-828 ExactSet™ Jumbo Clock with Cable Free™ Remote Temperature Sensor The backlit electroluminescence LCD with large , 3" digits is easily seen from across the room. Dis-plays in/outdoor temperature (-4°F to 140°F), 12-hour clock and month/day calender in English, French or Spanish. The clock sets itself automatically to the U.S. atomic clock 6 times every 24 hours. A U.S. map display shows designated time zones. Operates on 433MHz up to 100' from the remote sensor. Requires four AAA batteries..... **$69.99**

RM-116E Exactset™ Radio Controlled Clock *(left)* The most accurate of alarm clocks. Sets itself automatically by receiving time signals from the U.S. Atomic Clock. Features blue HiGlo™ backlight LCD, snooze, day/month/seconds and automatic adjustment for Daylight Savings Time **$29.99**

BA-812E Weather Clock *(right)* Unique bedside or desktop alarm clock features auto weather forecasting technology with easy-to-understand graphical weather icons. Displays indoor temperature and features a HiGlo™ backlit LCD..... Closeout **$19.99**

EMR-812A Cable Free™ Thermometer The latest in radio frequency technology! This Cable Free™ thermometer with jumbo display shows you the indoor temperature and the temperature from up to three remote locations. Includes one easy-to-install remote temperature sensor that can be placed up to 90 feet from the main unit – with no wires to install anywhere! • 433MHz operation • High/low memory and temperature alarms • Choose and change between Celsius and Fahrenheit • Includes one wireless sensor . **$29.99**

THR-138 Extra Sensor **$24.99**

Emerson

ESR-220 Solar/ Dynamo-Powered Radio & Flashlight Built-in Ni-Cad recharges using the solar panel or dynamo generator. Install 3 "AA's" (back-up only). Also power and recharge using optional AC adapter • Bright beam flashlight with 2 modes: steady or flashing • Warning siren feature, use alone or with flashing light • Built-in antenna • 8.5" x 3.5"..... **$29.99**

PDC-803 Electronic LCD Digital Compass Easy-to read LCD screen displays heading as a cardinal point (e.g. N, NW, SE) with numeric digits in degrees (e.g. 17°) plus a directional compass arrow • Back-light for night use • One touch calibration corrects for local magnetic interference • Mounts on dashboard with velcro • 3 "AAA" batteries included • 1.875"w x 3.625"h x 2.75"d, 4 oz..... **$29.99**

ICOM

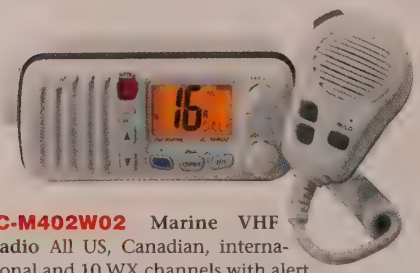
AIRCRAFT

A-22 VHF Air Band Transceiver Covers (COM) 118.-136.975, (NAV) 108-117.95 MHz and memory channels Programmed scan, memory scan and lock • 5W output • Instant 121.5MHz • NAV features: 200 channel VOR nav with CDI, radial heading TO/FROM VOR, auto bearing set • Semi-duplex, combines VOR/COM operation • Includes NiCad rechargeable battery and wall charger • 2.5"w x 7.75"h x 1.5"d, 1.4 lbs **$399.99**

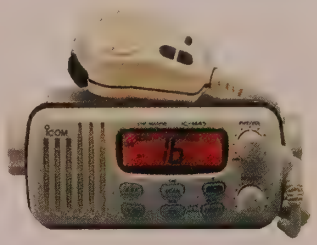
MARINE

IC-M3A Mini Handheld Marine VHF Radio *(left)* All US, international and 10 weather channels with alert • Independent channel 16 • Full function and priority scanner • Dual and tri-watch monitors channel 16 while operating another • 1/5W • Backlit display • Water resistant • Includes 6 NiCads and wall charger • 2.25"w x 5.5"h x 1.75"d, 14.4 oz **$159.99**

IC-M1V Marine Handheld *(right)* All US, Canadian, international and weather channels with alert • Normal and priority scan • "Tag" scan system • 5W • Dual/tri-watch • PC programmable • Alphanumeric • Waterproof • 1400mAh li-ion battery • 2.1"w x 5.5"h x 1.18"d, 9.9 oz..... **$199.99**



IC-M402W02 Marine VHF Radio All US, Canadian, international and 10 WX channels with alert • Normal/priority scan • Dual/tri-watch • 2-digit LCD with scrolling channels • 4-level backlighting • Key illumination • DSC capability • Built-in SC-101 selective calling • GPS repeater (with added GPS) • "Tag" scan • 25W/1W • Waterproof • 6"w x 2.6"h x 5.5"d, 2 lbs **$199.99**



IC-M45AW VHF 25W Marine Transceiver Water-resistant gaskets, including mic • One-piece aluminum diecast chassis • Large backlit display • 'Tag' scan system adds/deletes channels at switch push • 'Smart' mic changes channels or selects power without using panel • Dual/tri-watch monitors channel 16 while operating another • All international, US channels and 10 weather channels w/alert • Instant access to ch. 16 and call channel • Low battery indicator • 0.79"h x 2.36"w x 5.5"d **$149.99**

M-710 (21) SSB Marine Transceiver Rugged, 150W, 1136 channels with 160 user-programmable memories, PC programmable, alphanumeric readout on large LCD.General version without 2182kHz alarm, marine bands only. **Special Order $1399.99**

M-802 DSP Marine SSB Transceiver A marine radio with a digital signal processor, large backlit LCD with dot matrix characters, and built-in digital selective calling. Also boasts one-touch e-mail and GPS input. Easy to use in all conditions. • 0.5–29.99 MHz rx • 1.6–2.99, 4–4.99, 6-6.99, 8–8.99, 12-13.99, 16–17.99, 18–19.99, 22–22.99, 25–27.5 tx • J3E (SSB), J2B (AFSK) F1B (FSK), A1A (CW), M3E (AM, rx only) • 1355 channels • Selectable 150, 60, 20W • Headphone jack in front of controller • 9.2"w x 3.7"h x 9.1"d, 10.3 lb. (main) • 8.3"w x 4.4"h x 3.1"d, 1.2 lb. (controller) • 4.4"w x 4.4"h x 3.1"d, 0.8 lb. (speaker)..... **Special Order $1749.99**

Secure
www.aesham.com

YAESU

AIRCRAFT

VXA-200/16-SU Aviator Pilot II Offering communications, navigation indicator and safety aid in one HT. • AM: 118.000-136.975 (COM band) tx • AM/FM: 108.00-117.975 (NAV band), 118.000-136.975 (COM band) rx • 5W/1.5W with supplied battery • 150 memories • Direct frequency entry • NOAA weather receive (U.S. only) • NAV band VOR navigation display • One-touch emergency • ANL • Skip scan • Split channel • Temperature readout • Barometric pressure, altitude and density altitude • MIL-STD 810 • JIS-4 water resistant • External DC input • Helical antenna, rechargable NiCad battery pack (7.2V, 700 mAH), overnight charger, belt clip, headset cable • 2.02"w x 4.3"h x 1.18"d, 12.2 oz..... **$399.99**

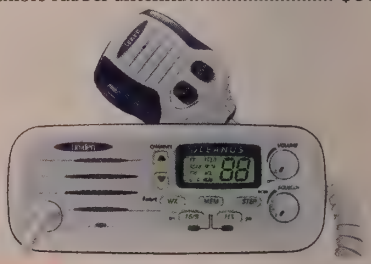
uniden

MARINE

HH-940P Marine VHF Handheld *(left)* All US, international, Canadian and 10 weather channels • Programmable memory • All channel scan • Instant channel 16 and 9 • Triple watch • Weather alert • Electronic touch controls • Super twist backlit LCD • 1W • Keypad lockout • Battery charge indicator • Waterproof/submersible • Rechargeable NiCad battery, belt clip, wrist strap, drop-in charger • 2.5"w x 1.25"d x 4.813"h, 8.8 oz **$139.99**

HH-985 Marine VHF Handheld *(right)* All US, international, Canadian and 10 weather with S.A.M.E. • All/selectable channel scan • Instant channel 16 and 9 • Triple watch • Electronic touch controls • 5/1W • Battery charge indicator • Watertight • Rechargeable NiCad battery, secure latch belt clip, wrist strap, drop-in battery capability • 2.5"w x 1.5" x 5.25"h, 8.8 oz **$149.99**

ATLANTIS Handheld 2-Way VHF Marine *(middle)* Durable, reliable for any marine activity • All US/international marine channels • JIS4/CRF46 waterproof • 5/1W output, switchable • Instant channel 16/9 • Triple watch • All N.O.A.A. weather channels with WX alert • Backlit keypad for easier twilight/night operation • Memory channel scan • Flexible rubber antenna **$99.99**



OCEANUS Full-Featured VHF Marine Radio All USA/international marine channels • 25/1 Watt output • Ultra-compact, rugged construction • QuikCommand™, one-touch channel 16/9 key on microphone • New, durable, rubber grip microphone • Backlit keypad for night or low light • Triple watch • Memory scan • Weather alert and scan • LCD display and dimmer • External speaker jack • Public address **$129.99**

SOLARA 25W VHF Marine Radio Full-featured • All USA/international marine channels • Instant channel 16 • 10 weather channels • Selectable 1/25 Watt output • High visibiity LED display • Front mounted speaker for improved sound quality • Transmit LED indicator • Weather resistant housing, microphone and connector **$99.99**

KENWOOD

MARINE

TKM-707 SSB Marine Transceiver A high-performance unit designed to meet stringent marine operation demands. Utilizes heavy-duty, rustproof, aluminum chassis and highest quality parts to maximize performance • 150W RF output • 2-23MHz marine operation with 500kHz-30MHz general receive • 198 memories • Multi-scanning • Emergency alarm built-in ..... **Special Order $1249.99**

Look For This NEW & Check Out AES' Latest Additions.

ADI

SINGLE BAND HANDHELDS

The AT-201HP and 401HP are advanced single band HT's with 40 memory channels, programmable band scan, auto repeater offset, frequency or channel display and more. The units have rugged metal cases with backlit keypads and displays. 12V batteries come standard, providing 5W of RF power. • MARS/CAP capable • 40 memories • CTCSS enc/decode • Programmable band and memory scan • DTMF paging • Dual frequency watch • Auto repeater offset • User selectable frequency or channel display modes.

AT-201HP 2M Handheld Transmit: 144–148MHz • Receive range: 130–179MHz • 4.25"h x 2"w x 1.3"d excluding battery pack **$99.99**

AT-401HP 70cm Handheld Transmit: 430–450 MHz • Receive: 420–470MHz • 4.25"h x 2"w x 1.3"d excluding battery pack..... **$159.99**

Available Accessories

ARC12 Smart charger, **CBP262** 6 AA NiCad battery holder, **CHA072** Wall charger for RBP072, **CHA120** Wall charger for RBP120/RBP22, **PCA145** Cigarette lighter cable, **RBP120NMH** 13.2V 1kHz NiMH, **SD911** Rapid charger, **SLC200** 2.5W carrying case, **SLC200L** 5W carrying case

The PR-52 and PR-222 handhelds expand your horizons beyond "average" VHF operation, and onto the enjoyable 222MHz amateur band or the 6m "DX" band. These 5-watt, palm-sized units bring you the portability and power you need to fully explore two great VHF bands. Other common features include 5W output with included NiCad battery pack • MARS and CAP capable • Built-in CTCSS encode and decode • 40 memory channels store any tone or offset • Direct frequency entry using 16 button keypad • Frequency or channel display modes • PC programming capability or cable cloneable.

PR-52 6 Meter Handheld Transceiver Transmit: 50–54 MHz • Receive: 40–54MHz • 4.25"h x 2"w x 0.25"d excluding battery pack **$159.99**

PR-222 220MHz FM Handheld Transceiver TX: 222–225MHz • RX: 216–228MHz • 4.25"h x 2"w x 0.25"d excluding battery pack **$169.99**

Available Accessories

CBP263 AA battery case, **PTC001** Mobile power pack, **RBP22H** 12V 1000mA NiMH, **SD911** Rapid charger, **SLC22L** Leather case

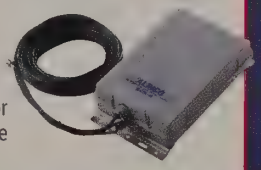
FREE ITEMS included with some radios. See Price Guide for details.

Alinco – Supercharged!

DM-330MVT Communications Grade Switching Power Supply

Tiny but powerful with great reviews! Ultra quiet with patented noise shift circuit, but we'll be surprised if you need to use it. 30A continuous, 32A peak output, weighs less than 5 lbs. Variable output from 5 ~ 15 VDC, memory output setting, illuminated V/A meter, Front panel cigar (10A) and quick-connect (5A) terminals, rear panel high-current connections. Ripple less than 15 mV p-p. Perfect for travel, station or test bench use. There's no switching supply like it!

EDX-2 Automatic Wire Antenna Tuner



Get on the air fast! Tunes random length wires from 9 ~ 80 feet. Covers 160 ~ 10 meters. (minimum 40 feet of wire needed for use on 160m) Compatible with DX-70 and DX-77 transceivers. Made for outdoor mounting, use at home, mobile or marine. Outputs to wire antenna (or whip) only (no coax output).

DJ-X2000T Multimode Wide Range "Intelligent" Receiver

It's the "Intelligent Receiver" covering from 100 KHz ~ 2150 MHz* with 2000 memory channels, alphanumeric labeling, receives AM, WFM, NFM, LSB, USB, CW and FM stereo. On-line "help" feature, 20 scan programs, computer programmable (download free software from Alinco website), Channel Scope™ display, Transweeper™, RF frequency counter, digital sound recorder, CTCSS decode, 2 level attenuator, field strength meter, instant "flash tune" and much, much more! Download free control software from www.alinco.com

DJ-X2T "Credit Card" Scanning Receiver

"Credit Card" size, tunes 500 KHz ~ 1 GHz*, 700 memory channels, AM, NFM, WFM modes, SMA antenna connector, 3 different antenna modes, internal AM ferrite bar, illuminated display, RF "sniffer", internal lithium ion battery PLUS snap-on dry-cell power pack and more! Free control software at Alinco web site.

DJ-X3T Multimode Wide Range Communications Receiver

Revolutionary design! Receives 100 KHz ~ 1.3 GHz*, AM, NFM, WFM. 700 memory channels, NiMH battery, four scan modes, stereo FM reception (with optional headphones). Download free control software from www.alinco.com

DJ-X10T Multimode Wide Range Communications Receiver

100 KHz ~ 2 GHz* 1200 memories, alphanumeric display, Channel Scope™ display, receives WFM, NFM, USB, LSB, AM and CW. Internal HELP feature, seven scan modes, clock with on/off function, "new user" and "expert" operating modes, BNC antenna connector, cloning function, affordable Alinco price and much more!

Distributed in North America by ATOC Amateur Distributing LLC
23 S. High St., Covington, OH 45318 • (937) 473-2840

*Cellular blocked in USA. Unblocked versions available to qualified users. Documentation required.
Specifications subject to change without notice or obligation. Performance specifications only apply to Amateur Bands.

Simple ■ Clean ■ Dependable
ALINCO
AMATEUR RADIO'S VALUE LEADER
www.alinco.com

ALINCO

AMATEUR RADIO'S VALUE LEADER™

SINGLE BAND HAND-HELDS

DJ-S11T Sub-Miniature VHF HT TX/RX: 144–148 MHz • 340 mW output • 20 multi-function memories plus 1 call • Encoder installed (50 tones) • Illuminated display • Use 3 AA or NiCad battery • Pivoting antenna • 4"h x 2"w x 1"d, 6.5 oz..... **$79.99**

Available Accessories
EBC6 Mobile HT bracket, EDC78 Wall charger (not alkaline), EDH18 12V/5.5V DC cigarrette lighter plug, EME12 Headset/earphone/microphone with VOX, EME13 Headset/earbud/microphone with VOX, EME15 Earphone/microphone with VOX, EME17 Boom earphone microphone, EME20 Tie-pin mic/earphone, EME6 Earphone, EMS47 Speaker microphone with volume control, ESC27 Soft case

DJ-S40T Pocket-sized UHF HT Covers 420-450MHz, with receiving capabilities beyond the range. 500mW power output but can be increased to 1W by using the optional NiMH battery or external DC supply. • 100 memories • Call channel and several scan modes • Newly designed case that conceals the speaker but provides loud, clear audio • 38 CTCSS encode/decode settings (decode standard) • 4 tone bursts, making it usable for repeaters in many parts of the world • Large, easy-to-read, illuminated display • Experimental "mosquito repelling feature" • Theft alarm function • Cloning capability • Use with crossband transceivers (base or mobile dualband) as a "remote mic" **$89.99**

Available Accessories
EBC6 Mobile HT bracket, EBP-52N 3.6V 500mA NiMH battery, EBP-53N 6.0V 500mA NiMH battery, EBP-54N 3.6V 1500mA NiMH battery, EDC105 Drop-in NiMH charger without power supply, EDC37 13.8V power cable, EDC43 Cigarette lighter cable, EDC93 Wall power supply for EDC105, EDH31 Dry cell battery case, EME12 Headset/eaphone/microphone with VOX, EME13 Headset/ear bud/microphone with VOX, EME15 Earphone/microphone with VOX, EME17 Boom earphone microphone, EME20 Tie-pin mic/earphone, EME6 Earphone, EMS47 Speaker microphone with volume control, EMS8Z Remote speaker mic, ERW4 PC cable, ESC37 Soft case

Look For This

NEW

& Check Out AES' Latest Additions.

DJ-196T 2M HT 5W output • 135-174MHz rx • 40 multi-function memory channels • MAR/CAP capability • Alphanumeric display • CTCSS tone encode/ decode and DCS • S-meter • Auto dialer • Cable cloning • PC programming capability • Theft alarm • Experimental insect repel • Back lit keypad • 4.9"h x 2.2"w x 1.6"d, 13.2 oz..... **$139.99**

DJ-296T 222 HT Same as DJ-196T (above) except has a range of 222-225MHz..... **$179.99**

DJ-496T 440 HT Same as DJ-196T (above) except has a range of 430-450MHz..... **$149.99**

Available Accessories
EBC6 Mobile HT bracket, EBP48N 9.6V 700mA 5W NiCad battery, EBP50N 9.6V 700mA 5W NiMH battery, EBP51N 9.6V 1500Ma 5W NiMH battery, EDC16B Cigarette lighter cable and filter, EDC36 Angle plug power cable with filter, EDC37 13.8V power cable, EDC43 Cigarette lighter cable, EDC88 Rapid charger, EDC97 NiMH quick charger, EDH30 Dry cell battery case, EME12 Headset/eaphone/ microphone with VOX, EME13 Head-set/ear bud/ microphone with VOX, EME15 Ear-phone/microphone with VOX, EME17 Boom earphone microphone, EME20 Tie-pin mic/earphone, EME6 Earphone, EMS47 Speaker microphone with volume control, ERW4 PC cable, ESC36 Soft case for EBP48N

DUAL BAND HANDHELDS

DJ-596T 2M/440MHz Dual Band HT The first Amateur HT to support optional digital voice communications. • 5W output on both bands with standard NiMH battery • Wide or narrow FM • Digital voice with optional EJ-43U board • Extended receive capabilities • CTCSS and DCS encode and decode • Three scan modes • Work and save in memory any number of "odd split" transmit/receive offsets • Illuminated keys and display • Large display shows alphanumeric designations for each of the 100 memory channels • Theft alarm and experimental "mosquito repelling sound" • Nine, autodial memories • External terminal control can output 5 VDC @ 5mA from the mic jack, which can be used by experimenters to control external devices • Operates on 6-16 VDC, battery also charges while on external power source • 4.9"h x 2.2"w x 1.6"d, 13.2 oz **$209.99**

Available Accessories
EBC6 Mobile HT bracket, EBP48N 9.6V 700mA 5W NiCad battery, EBP50N 9.6V 700mA 5W NiMH battery, EBP51N 9.6V 1500mA 5W NiMH battery, EDC16B Cigarette lighter cable and filter, EDC36 Angle plug power cable with filter, EDC37 13.8V power cable, EDC43 Cigarette lighter cable, EDC88 Rapid charger, EDC97 NiMH quick charger, EDH30 Dry cell battery case, EJ43U Digital board, EME12 Headset/eaphone/microphone with VOX, EME13 Headset/ear bud/ microphone with VOX, EME15 Earphone/microphone with VOX, EME17 Boom earphone microphone, EME20 Tie-pin mic/earphone, EME6 Earphone, EMS47 Speaker microphone with volume control, ERW4 PC cable, ESC36 Soft case for EBP48N, SW596 Windows programming software

DJ-C5T Credit Card Sized 2M/440MHz Dual Band HT 300mw output • TX: 144–147.995 & 420–449.995MHz • RX: 118–173.995 and 420–449.995MHz • 50 memories • CTCSS tone enc/dec standard • Volume/squelch control • Keylock • Auto power off with Morse Code alert • Mic/earphone jack • TX lamp • Free offset • Reverse monitor • Scan function with skip setting • Multi Euro tone bursts • Battery save & channel display modes • AM aircraft receive with expanded VHF wideband reception • Rechargeable 3.8V lithium-ion battery • 2-hour "snap-in" charger • Soft case • 3.75"h x 2.25"w x 0.43"d, 3 oz..... **$149.99**

Available Accessories
EDC16B Cigarette light cable with filter, EDC36 Angle plug power cable with filter, EDS7 Microphone adapter, EME12 Headset/earphone/microphone with VOX, EME13 Headset/ ear bud/microphone with VOX, EME15 Earphone/microphone with VOX, EME17 Boom earphone microphone, EME18 Earphone, EME20 Tie-pin mic/earphone, EMS49 Mini lapel speaker microphone, EMS50 Speaker microphone, ESC34 Soft case with belt clip

FREE ITEMS included with some radios. See Price Guide for details.

DJ-V5TH VHF/UHF Dual Band FM HT Full 2 meter and UHF Amateur band coverage • Standard high-power 700 mAh NiCad battery pack – up to 5W output • 3 output settings • Expandable receive range 76–999MHz (cellular blocked), includes wide FM capability • Split-band operation capability • Eight different tuning steps • Alphanumeric display – up to 6 characters • 200 memory channels plus two call channels • CTCSS encode/decode • DTMF squelch • 4 different European tone bursts • 4 scan modes and 5 programmable scan banks • MARS/CAP capability • Auto-dial memories • Auto high temperature protection feature • SMA antenna connector • Wire cloning capable • Accepts up to 13.8V DC input • 4.5"h x 2.25"w x 1.75"d, 13 oz..... **$209.99**

Available Accessories
EBP46N 9.6V 600mA 5W NiCad battery, EDC16B Cigarette light cable with filter, EDC36 Angle plug power cable with filter EDC37 13.8V power cable EDC43 Cigarette lighter cable, EDC91 Quick charger, EDH29 Dry cell battery case, EME12 Headset/earphone/microphone with VOX, EME13 Headset/ear bud/microphone with VOX, EME15 Earphone/ microphone with VOX, EME17 Boom earphone microphone, EME20 Tie-pin mic/earphone, EME6 Earphone, EMS47 Speaker mic with volume control, EMS8Z Remote speaker mic, ESC35 Soft case for EBP45N/46N

Secure
www.aesham.com

DJ-V5TH, 2m/440 HT*

Great 2m/440 TX & RX, extended RX range from 76 ~ 999 MHz, includes wide band FM, alphanumeric display, 200 memories, CTCSS & DCS encode+decode, 5 watts output, compact size, 4 scan modes, 5 scan banks, split-band operation for satellite ops, auto-dialer, 13.8 VDC direct input.

DJ-196T (2m), DJ-296T (222 MHz), DJ-496T (440 MHz) HT

Backlit keypad, alphanumeric display, 40 memories, CTCSS and DCS encode+decode, auto dialer, theft alarm, 13.8 VDC input, experimental mosquito-repel tone and more! High-power battery is standard.

DJ-S40T 440 MHz HT

NEW!

NEW! This "gen2" pocket HT features 500 mw output on AA cells, up to one watt using optional battery pack or external DC power. 100 memories, CTCSS encode+decode, SMA antenna, illuminated display, new speaker design, theft alarm and more! Uses standard Alinco speaker/mic accessories.

DJ-S11T (2m),

"Pager size" transceiver, 340 mw output, great TX and RX audio. Self-storing pivot antenna, uses AA batteries, 21 memories, CTCSS encode, fits in pocket or purse. Amazing low price! Mobile DC cable and speakers mics also available.

Unleash the Power!

Alinco lets you unleash real communications power at "down to earth" prices!

DJ-C5T 2m+440 "Credit Card" FM HT

Amazing "credit card" size, internal speaker, 50 memories, CTCSS encode+decode, AM airband RX, 300 mw output, soft case, 600 mAh lithium ion battery, includes rapid charger!

DJ-596T 2m+440 HT

100 memories, alphanumeric channel labels, powerful NiMH battery, CTCSS and DCS encode+decode, wide and narrow FM modes, autodial memories, theft alarm feature, accepts 6 ~ 16 VDC direct input, illuminated keys and display, autodial memories, full 2m and 440 band coverage plus expanded receive; accepts optional digital voice communications board and more!

DR-605TQ 2m+440 FM Mobile/Base

A super value! 50 watts VHF/35 watts UHF, 51 memories/band, 430 ~ 449.995 range allows for satellite work, crossband repeat, 9600 packet port, dual band, dual RX. Check the LOW price!

DR-135T (2m) DR-235T (222 MHz) DR-435T (440 MHz) Mobile/Base

DR-135 also includes AM Airband RX. All models feature 100 memories, ignition key on/off, theft alarm, large 7 character alphanumeric display, optional internal packet TNC can be used for regular packet or APRS™, true 9600 packet mode, front panel data/GPS input, rear panel DSUB9 connector, H/M/L power output settings, 10 autodial memories, CTCSS and DCS encode+decode, backlit mic, sturdy construction and more! Accepts optional digital voice communications board.

DR-M06TH 6m/20 watts FM Mobile/Base

Enjoy the "magic band" with local and DX FM contacts, simplex or through repeaters. Includes CTCSS encode and 100 memories.

DX-70TH (100w) HF+6m Mobile/Base/Portable

160 ~ 6m Amateur band TX in all modes, general coverage RX from 150 KHz ~ 30 MHz and 50 ~ 54 MHz. Remotable face, 2 VFOs, 100 memories, speech compressor, SSB, CW and AM narrow filters, full, semi or automatic break-in, multi-function control and MUCH more! Ask about EDX-2 wire antenna tuner & DM-330MVT power supply.

DX-77T HF Base/Portable

Value leader! 160 ~ 10 meter Amateur band TX in all modes; 500 KHz ~ 30 MHz general coverage RX. Clean, clear audio, low noise floor from DDS, 100 memories, easy to operate. Speech compressor, CTCSS encode for 10m FM operation, CW filter included. Ask about EDX-2 wire antenna tuner and DM-330MVT power supply!

www.ALINCO.com

Distributed in North America by ATOC Amateur Distributing LLC • 23 S. High St., Covington, OH 45318 • (937) 473-2840

*Cellular blocked in USA. Unblocked versions available to qualified users, documentation required.
Transceivers intended for use by properly licensed operators. Permit required for MARS use. Specifications subject to [illegible]
Performance specifications only apply to amateur bands. APRS is a registered trademark of Bob Bruninga, WB4APR

ICOM

2M SINGLE BAND HANDHELDS

IC-2GXAT/HP 2M Transceiver 7W output @ 13.5 V DC • 144-148MHz rx (136-174MHz expandable) • 40 mem. channels • 700mAh battery • Auto repeater operation • Tone scan • DTMF redial and five auto dial memories • 350 mW audio • Selectable DTMF speed • Built-in PL enc/dec • 35mA current drain • 2.2"w x 4.9"h x 1.4"d, 12.9 oz..... **$249.99**

Available Accessories

AD25 Battery charger adapter, **AD28** Battery pack adapter/rapid charger, **BC105A** Wall charger, **BC119N11** NiCad/NiMH desk charger, **BC11911** Desk charger, **BP130A** Battery case, **BP157A** 900MA 7.2V battery, **BP174** 600mA 12V battery, **CP13** Cigarette cable with filter, **CP13L** Right angle cigarette cable with filter, **HM128** Earphone + mic, **HM46** Slim-line speaker mic, **HM46L** Slim-line speaker mic with right angle plug, **HM54** Heavy-duty speaker mic, **HS51** Headset/VOX, **HS94** Earpiece headset, **LC116** Case for 2GXAT/BP130/157A/160, **LC117** Case for 2GXAT/BP132A, **MB30** Mobile or wall bracket, **OPC288** Mini DC power cord, **SP13** Earphone, **VS1** VOX-PTT unit for HS94

IC-T2H SPORT 2M Handheld 6W output @ 9.6 V DC • 136-174MHz receive • 43 memory channels • Tone squelch (CTCSS enc/dec) standard, with pocket beep and tone scan • 8 programmable keys • 5 DTMF memory channels, with up to 32 digits codes and re-dial for autopatching repeaters • 10 weather channels • Direct keypad frequency entry • Back-lighted LCD display • Auto repeater function • "Intuitive" help function (display directs user what to do next when making selections) • 2-step power save function • Monitor function • Lock function • One-piece, die-cast aluminum chassis and super tough polycarbonate casing • Meets MIL SPEC C/DE for shock and vibration • Includes battery holder and uses alkalines (not included) • 2.3"w x 5.5"h x 1.3"d, 14.8 oz. **$99.99**

Available Accessories

AD81 Adapter for BC11911, **BC110A** Wall charger, **BC119N01** Desk charger, **BC11901** Desk charger, **BC122A** AC adapter for BC133, **BC133** Drop-in trickle charger, **BP194** "AA" alkaline battery case, **BP195** 700mA 9.6V battery, **BP196** 1050mA 9.6V battery, **CP12L** Right angle cigarette cable with filter, **CP17L** Right angle cigarette cable for charger, **CST2** DOS programming software, **CSWHH4** Windows software with cable, **HM128** Earphone + mic, **HM131** Speaker/mic/earphone jack/clip, **HM46** Slim-line speaker mic, **HM54** Heavy-duty speaker mic, **HM75A** Remote control mic, **HS51** Headset/VOX, **HS94** Earpiece headset/use with VS1L, **LCF3GSWIVEL** Leather case with swivel, **LC145** Carrying case, **MB68** Extra standard belt clip, **MB74** Spring loaded belt clip, **MB87** Swivel belt clip, **OPC254L** Right angle mini DC power cable, **OPC474** Radio-to-radio clone cable, **OPC478** PC cable, **SP13** Earphone, **VS1** VOX-PTT unit for HS94

With the IC-T2H SPORT and a PC you can download up to 40, stored, pre-programmed frequencies, such as in a repeater directory, from your PC directly into the SPORT. PC-to-SPORT and SPORT-to-SPORT cloning requires optional software and cables.

IC-T22A 2M Handheld 5W output @ 13.5 V • 4.0 - 16 VDC input • 136-174MHz rx • Auto low power/power saver (15mA drain) • Remote control microphone (optional HM-75A) • 80 memory channels (40 with alpha display) • VHF/UHF air band receive • Auto repeater function • Backlit display • Die cast aluminum frame and heat sink • Optional tone scan • 2.3"w x 4.3"h x 1. 1"d, 10.9 oz..... **$249.99**

Available Accessories

AD56 Battery pack adapter/rapid charger, **BC119N11** NiCad/NiMH desk charger, **BC11911** Desk charger, **BP170** Battery case, **BP172** 950 mA 4.8V battery, **BP173** 600mA 9.6V battery, **BP180** 600mA 7.2V battery, **CP12** Cigarette cable with filter, **CP12L** Right angle cigarette cable with filter, **HM128** Earphone + mic, **HM131** Speaker/mic/earphone jack/clip, **HM46** Slim-line speaker mic, **HM46L** Slim-line speaker mic with right angle plug, **HM54** Heavy-duty speaker mic, **HM75A** Remote control mic, **HS10** Boom mic/headset, **HS10SA** VOX unit, **HS10SB** PTT switchbox, **HS85** Headset with VOX, **HS94** Earpiece headset, **LC125** Case for T22A with BP170/71/72, **LC126** Case for T22A with BP173, **MB30** Mobile or wall bracket, **NCP1** Nylon chest pack, **OPC254** Mini DC power cable, **OPC254L** Right angle mini DC power cable, **SP13** Earphone, **UT94** Tone squelch, **VS1** VOX-PTT unit for HS94

IC-V8 2 Meter FM Handheld ICOM's first amateur 2m handheld radio with CTCSS/DTCS encode/decode with tone scan. Retro design brings back memories of the popular IC-2AT. You will not find a 2 meter handheld that is easier to use. • 144-148MHz • Full 5.5W output from standard battery • NEW! Acoustical design for the best-audio • 100 alphanumeric memory channels with easy recall • Scans 40 channels per second • Zoom through your personalized scan ranges • Customize operatation using the up/down and rotary controls • Designed for any size hand with a full sized keypad to accommodate larger fingers • Comes with drop-in trickle charger which operates from 12VDC either in the home or in the car; charge radio with battery or battery alone • Use a PC to set-up operating parameters using CS-V8 computer software • Durable green polycarbonate front panel and aluminum die-cast chasis built to military-grade specs • 2.125"w x 5.188"h x 1.375"d, 12.3 oz..... **$129.99**

Available Accessories

BC14401 Desk charger with adapter, **BP208** Battery case, **BP209** 7.2V 1100mA 5.5W battery, **BP210** 7.2V 1650mA 5.5W battery, **BP211** 7.4V 1600mA Lith ion battery, **BP222** 7.2V 600mA 5.5W battery, **CP17L** Right angle cigarette cable for charger, **CSV8** Cloning software, **HM46L** Slim-line speaker mic with right angle plug, **HM54** Heavy-duty speaker mic, **HM75A** Remote control mic, **HS51** Headset/VOX, **HS94** Earpiece headset, **LCF3GSWIVEL** Leather case with swivel, **MB68** Extra standard belt clip, **MB74** Spring loaded belt clip, **MB87** Swivel belt clip, **OPC474** Radio-to-radio clone cable, **OPC478** PC cable, **OPC515L** Right angle DC cable for charger, **SP13** Earphone, **UT108** DTMF decode unit, **VS1L** Right angle VOX-PTT unit for HS94

DUAL BAND HANDHELDS

IC-Q7ABC Ultra Compact 2M/440MHz Dual Band HT with Full Feature Scanner Extra easy to use and wide FM performance • Output power: 350mW (VHF), 300mW (UHF) • Transmit: 144–148MHz and 440–450MHz triple conversion • Receive: 30–1300MHz (cell blocked on U.S. model) • 200 memories • Superior audio in its class from large 1.4" speaker and 100mW audio output • CTCSS tone encoder/decoder with pocket beep • Easy to use – only 7 buttons (including power) and a large, easy to grasp tuning dial • Auto repeater function • Channel operation • Tone scan • 10 tuning steps • Easy reverse • Dual watch • RIT function • Auto power OFF power saver • Manually or automatically controlled LCD back lighting for easy low light operation • Meets MILSPEC C/D/E for shock and vibration • Includes 2 AA-size NiCads, or "AA" alkalines • 2.3"w x 3.75"h x 1.1"d, 6 oz..... **$129.99**

Available Accessories

AD92SMA SMA-BNC adapter, **BC127A** Charger for 2 or 4 "AA" NiCads, **HM128** Earphone + mic, **HM46** Slim-line speaker mic, **HS85** Headset with VOX, **LC146** Carrying case, **OPC782** Plug adapter cable, **SP13** Earphone

FREE ITEMS included with some radios. See Price Guide for details.

IC-T7H 2M/440MHz Dual Band HT 5W with standard battery (9.6V/650mAh) • Up to 6W @ 13.5V DC (optional DC power cable required) • TX 144-148 MHz, 440–450MHz; RX 118–174 MHz, 400–470MHz • 250mW+ audio output • One-touch band switching • Priority watch • 70 memories • 9 DTMF memories for auto dialing • CTCSS tone encode/decode • 50 independently programmable tone frequencies • Auto power save and repeater function • Auto OFF • Thumb-touch lock settings feature • Internal guide • Backlit LCD • Wall charger • Programmable • 2.3"w x 4.8"h x 1.1"d, 14.3 oz.... **$199.99**

Available Accessories

AD56 Battery pack adapter/rapid charger, **BC119N11** NiCad/NiMH desk charger, **BC11911** Desk charger, **BP170** Battery case, **BP172** 950mA 4.8V battery, **BP173** 600mA 9.6V battery, **BP180** 600mA 7.2V battery, **CP12** Cigarette cable with filter, **CP12L** Right angle cigarette cable with filter, **CST7** DOS programming software, **CSWHH4** Windows software with cable, **FA1443B** 2M/440 duck, **HM128** Earphone + mic, **HM131** Speaker/mic/earphone jack/clip, **HM46** Slim-line speaker mic, **HM54** Heavy-duty speaker mic, **HM75A** Remote control mic, **HS10** Boom mic/headset, **HS10SA** VOX unit, **HS10SB** PTT switchbox, **HS85** Headset with VOX, **HS94** Earpiece headset, **LC136** Case for T7H with BP170/171/172, **LC137** Case for T7H with BP173/180, **MB30** Mobile or wall bracket, **NCP1** Nylon chest pack, **OPC254** Mini DC power cable, **OPC254L** Right angle mini DC power cable, **OPC478** PC cable, **SP13** Earphone, **VS1** VOX-PTT unit for HS94

AES
Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

New IC-T90A

Get back to basics with the new IC-T90A. This pocket sized tri-bander is loaded with high performance features, yet is small enough to take anywhere. Designed for one-handed operation, all radio functions are easily accessed via the color selectable backlit keypad. Lithium - ion power lets you enjoy a full 5W of power on all bands, for up to 6 hours of operating time! Wide band receive from 495kHz to 999.999MHz*, DTCS/CTCSS with encode/decode for multiple signaling, 500 alphanumeric memories with Dynamic Memory Scan, and much more. Coming soon to your authorized ICOM dealer.

5 Watts on all bands!

Big Performance. Actual Size.

Wide Band Receive 495kHz - 999.999MHz*

AM/FM/WFM. Preprogrammed TV memories. Listen to shortwave, AM & FM broadcast radio stations, police, fire, military, aircraft, and various amateur bands.

Morse Code Synthesizer New feature in ICOM HTs!

Announces the operating frequency in morse code. With adjustable code speed.

Weather Alert Keep track of the weather

Checks for National Weather Service activity during normal operation. When a weather emergency occurs, the 'T90 automatically switches to the weather channel.

6M/2M/70CM

Large Backlit Display

Shows the operating frequency, set mode contents, battery indicator, relative signal strength, etc...

External Jacks

Connect an optional speaker-mic or headset for more privacy

Connect to your PC for programming & cloning

Tuning Dial

Can be customized for channel selection or volume control

Up/Down Switch

Can be customized for volume control or channel selection

Rugged Construction

Die-cast aluminum case and chassis coupled with JIS-4 weather resistant construction make the 'T90 great for active outdoor operation

Backlit Keypad

Enter frequencies or memory number and use special function keys to toggle between different modes, memory banks, and more.

Lithium Ion Power

Enjoy a full 5watts of power on all bands and up to 6 hours of operating time!

Small, Take-Anywhere Size

Dimensions: 2.5"W x 3.4" H x 1.15"
Weight: 8.5 oz.

IC-T90A. Mini multiband marvel.

6M/2M/70CM • 5W Output Power w/Li-ion Battery • Wide Band Receiver - 495kHz - 999.999MHz* • CTCSS/DTCS Encode/Decode w/Tone Scan • 500 Alphanumeric Memory Channels • Dynamic Memory Scan (DMS) • Weather Alert • Backlit Keypad & Display • JIS-4 Weather Resistant Construction • Split Band Operation • Die-cast Aluminum Case & Chassis • PC Programmable w/Optional Equipment

Selectable Colors for Backlit Keys

ICOM ADVANTAGE

Why not? You deserve it!

www.icomamerica.com

ICOM®

*Cellular frequencies blocked; unblocked versions available to FCC approved users.

©2002 ICOM America, Inc. 2380 116th Ave NE, Bellevue, WA 98004, 425-454-8155. The ICOM logo is a registered trademark of ICOM, Inc.
All specifications are subject to change without notice or obligation. T90AAES802

ICOM

IC-W32A 2M/440MHz **Dual Band HT** 5W output @ 13.5V DC • 144-148, 440-450 transmit; 118-174, 400-470 receive • 200 memories • 8-character alphanumeric memory identification • Keypad entry • Backlit display and keypad • HT-to-HT cloning capability or PC programming capability (optional accessories required) • Independent tuning and volume band controls • VHF/UHF ex-change function allows assignment of VHF/UHF band controls to either knob • Meets MILSPEC C/D/E for shock and vibration • 2.25"w x 5.5"h x 1.4"d, 16 oz **$279.99**

Available Accessories

AD51 Battery pack adapter/rapid charger, **BC119N11** NiCad/NiMH desk charger, **BC11911** Desk charger, **BP170** Battery case, **BP172** 950mA 4.8V battery, **BP173** 600mA 9.6V battery, **BP180** 600mA 7.2V battery, **CP12** Cigarette cable with filter, **CP12L** Right angle cigarette cable with filter, **CSWHH4** Windows software with cable, **CSW32** DOS programming software, **FA1443B** 2M/440 duck, **HM128** Earphone + mic, **HM131** Speaker/mic/earphone jack/clip, **HM46** Slim-line speaker mic, **HM54** Heavy-duty speaker mic, **HM75A** Remote control mic, **HS10** Boom mic/headset, **HS10SA** VOX unit, **HS10SB** PTT switchbox, **HS85** Headset with VOX, **HS94** Earpiece headset, **LC128** Carrying case, **MB30** Mobile or wall brkt, **NCP1** Nylon chest pack, **OPC254** Mini DC power cable, **OPC254L** Right angle mini DC power cable, **OPC474** Radio-to-radio clone cable, **OPC478** PC cable, **SP13** Earphone, **VS1** VOX-PTT unit for HS94

MULTI BAND HANDHELDS

IC-T81A 6M/2M/440MHz/ **1.2GHz Quadband** 4.5W with BP-200 • Up to 5W @ 13.5V DC (1W on 1.2GHz) • Wide band rx: 50–54MHz, 74–174 MHz, 400–470MHz, 1240–1300MHz (including Airband, cell blocked) • Broadcast FM receive (some TV) • 124 memories, 10 scan edges • Tone squelch/scan (CTCSS enc/dec) • DTMF, 9 memories • Backlit display • Built-in guide function • NiMH-powered (wall charger included) • Battery voltage indicator • RIT/XIT (VXO) for 1.2GHz • Multi-function "joystick" switch • HT-to-HT cloning capability • PC programmable • Water resistant to JIS grade 4 • 2.3"w x 4.2"h x 1.1"d, 9.9 oz . Closeout **$279.99**

Available Accessories

AD87 Battery pack adapter/rapid charger, **AD88** PCB board, **AD92SMA** SMA-BNC adapter, **BC119N21** NiCad/NiMH desk charger, **BC11931** Desk charger, **BP197** 3 "AA" battery case, **BP198** 700mA 4.8V NiMH battery, **BP199** 700mA 6V NiMH battery, **BP200L** 760mA 9.6V NiMH battery, **CP12** Cigarette cable with filter, **CP12L** Right angle cigarette cable with filter, **CST81** Windows cloning software, **CSWHH4** Windows software and cable, **HM128** Earphone + mic, **HM131** Speaker/mic/earphone jack/clip, **HM46** Slim-line speaker mic, **HM54** Heavy-duty speaker mic, **HM75A** Remote control mic, **HS51** Headset/VOX, **HS85** Headset with VOX, **HS94** Earpiece headset, **LC148** Carrying case, **OPC254** Mini DC power cable, **OPC254L** Right angle mini DC cable, **OPC474** Radio-to-radio clone cable, **OPC478** PC cable, **SP13** Earphone, **VS1** VOX-PTT unit for HS94

IC-T90A 6M/2M/70cm FM **Handheld** Palm-sized, simple to operate, and designed to last with a die-cast aluminum chassis. New MOSFET technology, along with a 7.4V Lithium-ion battery, produces a full 5W on 6M, 2M, and 70cm. Wideband receive covers 495kHz to 999.990MHz (cellular blocked), AM, FM or WFM modes. Unique WX Alert feature constantly checks local active weather station for NWS alert tone. If an alert occurs, the HT automatically switches to the WX channel and beeps. It is the ultimate in scanning management with 555 alphanumeric memories. Memory breakdown is: 500 regular, 50 scan edges, and 5 call channels. Dynamic Memory Scan feature allows the choosing any of 450 memories to scan, and, with its soft partitioning, setting up a maximum of 18 banks or 100 channels per bank. Pre-programmed with TV station frequencies! Over-sized buttons make operation and programming easy, and optional software allows customizing of memory channels, alphanumerics, scanning lists and operation parameters using a PC. • 2.28"w x 3.44"h x 1.16"d, 8.47 oz **$259.99**

Available Accessories

AD92SMA SMA – BNC adapter, **CST90A** Windows cloning software, **HM128** Earphone + mic, **HM131** Speaker/mic/earphone jack/clip, **HM46** Slim-line speaker mic, **HM75A** Remote control mic, **HS85** Headset with VOX, **HS94** Earpiece headset, **OPC474** Radio-to-radio clone cable, **OPC478** PC cable, **SP13** Earphone, **VS1** VOX-PTT unit for HS94

KENWOOD

SINGLE BAND HANDHELD

TH-22ATH 2M FM **Handheld** This is a super-compact and lightweight transceiver with impressive performance. EZ to use menu system. Palm-sized, sharply styled, easily slips into pocket. • 5W output from MOS FET power module and standard PB-34 NiCad battery • 136-174 receive • RF output control (Hi/Low/EL) • 144–148 MHz coverage • 40 memory channels stored in E²PROM (plus 1 call channel) • Auto repeater offset • Multiple scan functions (VFO, call and memory) • Dual Scan stop modes (CO and TO) • CTCSS encode • DTSS and page • Luminescent keypad and LCD with backlighting • Built-in DTMF keyboard • (5) 15-number DTMF memories • Tone Alert with time indicator • Selectable squelch configuration • Busy channel lock out • Battery voltage indicator • Automatic power off • Drop-in desktop charger • 2.1"w x 6.1"h x 1.12"d, 11 oz..... **$219.99**

Available Accessories

BT9 Four "AA" battery holder, **EMC3** Label clip mic/earphone PC, **HMC3** VOX/boom mic headset, **KSC14** 2 pack rapid charger, **KSC8A** Drop-in charger, **PB33** 1200mA 6V battery, **PB34** 600mA 9.6V 5W battery, **PG2W** DC cable, **PG3J** Cigarette cord with filter, **SMC32** Mini right angle speaker mic, **SMC33** Speaker mic with remote control, **SMC34** Speaker mic with volume function keys, **TSU8** CTCSS decoder, **WR2** Water resistant bag

DUAL BAND HANDHELDS

TH-D7A(G) 2M/440MHz **Dual Band Data Communicator** Equipped with a built-in TNC for simple packet operation or with a GPS as a full function APRS™. Reports position, speed and heading as well as calculation of distance to destination. Also use for APRS™ messaging – send up to 45 characters without a PC. Advanced functions possible with the VC-H1 • 5.5W @ 13.6V DC • 2M: 144–148MHz tx, 118–174MHz rx • 440MHz: 430–450MHz tx, 400–480MHz rx • 1200/9600 baud TNC • Station list stores data in up to 40 memory channels • Grid square locator display • Dual receive on same band for voice and data (VHF only) • 200 memories • PC programmable for frequency and name (PG-4W required) • 16 backlit keys • CTCSS encode/decode • MIL-SPEC 810C/D/E water resistant • 10 channel DTMF phone and auto patch memories • TM-V7A and TM-742D DTMF remote • Altitude • Time • 3-position memory • 3-memory text • Position ambiguity • Audible emergency signal • Auto message response • Data band settings • 1750MHz packet burst • 4.75"h x 2.25"w x 1.5"d, 12 oz **$429.99**

Available Accessories

BC19 Rapid charger, **BT11** Four "AA" battery holder, **EMC3** Lapel clip mic/earphone PC, **HMC3** VOX/boom mic headset, **J29063113** Belt clip, **PB38** 650mA 6V NiCad battery, **PB39** 600mA 9.6V 5W battery, **PG2W** DC cable, **PG3J** Cigarette cord with filter, **PG4V** VCH1 connector cable, **PG4W** PC software and cable, **SC47B** Black soft case, **SC47OR** Orange soft case, **SMC32** Mini right angle speaker mic, **SMC33** Speaker mic with remote control, **SMC34** Speaker mic with volume function keys

TH-G71A Dual Band FM HT Its ergonomic design, illuminated and back lit display all combine to make operation a breeze. The EZ to use menu system gives full control over all operating settings. • 6W (VHF), 5.5W (UHF) @ 13.8V DC • 2M: 144–148 tx/rx and 118–174MHz extended receive including Aircraft, 440MHz: 430–450MHz tx and 400–470 MHz rx • 200 multi-function memory channels • Memory name function • Multiple scan modes • CTCSS tone scan • DTMF memory (10 channels) • DTMF remote control • Function key lock • Auto battery saver circuit • Auto power-off • TIme-out timer • PC ready • High performance antenna • TM-V7A remote control • MIL-STD 810E approved • 2.3"w x 4.4"h x 1.3"d, 11.6 oz..... **$249.99**

Available Accessories

BC19 Rapid charger, **BT11** Four "AA" battery holder, **EMC3** Lapel clip mic/earphone PC, **HMC3** VOX/boom mic headset, **J29063113** Belt clip, **PB38** 650mA 6V NiCad battery, **PB39** 600mA 9.6V 5W battery, **PG2W** DC cable, **PG3J** Cigarette cord with filter, **PG4P** PC control cable, **SC45** Soft case for G71A with PB38/39, **SMC32** Mini right angle speaker mic, **SMC33** Speaker mic with remote control, **SMC34** Speaker mic with volume function keys, **WR2** Water resistant bag

AES
Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

New IC-2720H 2m/70cm Mobile Transceiver

Two Bands. Endless Possibilities.

Fresh off the drawing board! With ICOM's new IC-2720H you can have V/V, U/U simultaneous receive capability, plus V/U full duplex operation! Each band has independent controls for tuning, volume, and squelch. Change from the main band to sub-band with the touch of a button. The combination of the '2720H's one piece die-cast aluminum chassis and 50W VHF (35W UHF) of transmit power gives you a rugged, powerful package to get your signal out, even in the most demanding environments. With features like a Remote Mount Head with 11' of Separation Cable and Mounting Hardware, Weather Alert, and ICOM's exclusive DMS Scan System, this is one dual band mobile that has endless possibilities. Check with your AES dealer for more details.

IC-2720H. True dual band fun.

2M/70CM • 50W VHF/35W UHF • VV/UU/VU • CTCSS/DTCS Encode/Decode w Tone Scan • Wide Band RX including Weather & Air Bands • 212 Memory Channels • Remote Control Mic • DMS • DTMF Encode • 10dB Attenuator • Cross Band Repeat* • Independent Controls • Rugged Construction

IC-2720H Features

- **SELECTABLE OUTPUT POWER.** Output power is selectable in three steps, 50W (35W UHF), 20W, & 5W.
- **REMOTE MOUNT HEAD.** The '2720H comes standard with a remote mount head, 11' of separation cable, and mounting hardware, giving you limitless installation options. Put the control head where it's easiest to operate! Plus, you can connect the mic to the remote mount head or the main unit.
- **CTCSS AND DTCS OPERATION WITH TONE SCAN.** Get onto the repeater fast! 104x2 DTCS and 50 CTCSS codes help gain you quick repeater access. With pocket beep and tone scan.
- **212 MEMORY CHANNELS.** A total of 212 memory channels, including 2 call channels and 10 scan edges.
- **HM-133V REMOTE CONTROL MICROPHONE.** Control everything from the palm of your hand! ICOM's exclusive hot keys let you program the most used features for quick access. Bigger backlit keys allow you to operate in low light conditions.
- **DYNAMIC MEMORY SCAN (DMS).** ICOM's exclusive DMS system gives you flexibility to customize and manage your memory banks like no other dual bander.
- **DTMF ENCODE.** 12 DTMF memory channels with up to 24 digit DTMF codes can be used to control other equipment.
- **RUGGED CONSTRUCTION.** The one piece, die-cast aluminum chassis ensures reliable operation against shock and vibrations. A large cooling fan on the back keeps the internal components cool and allows you to operate in even the harshest environments.

*For more information about acceptable cross band repeat operation, please call our literature request hotline at 425-450-6088 and ask for our cross band repeat brochure.

This device has not been approved by the FCC. This device may not be sold or leased, or offered for sale or lease, until approval of the FCC has been obtained.

©2002 ICOM America, Inc. 2380 116th Ave NE, Bellevue, WA 98004, 425-454-8155. The ICOM logo is a registered trademark of ICOM, Inc.
All specifications are subject to change without notice or obligation. 2720HAES802

Setting a new standard

www.icomamerica.com

ICOM®

KENWOOD

TRIBAND HANDHELD

TH-F6A FM Triband HT Covers 144/220 and 440MHz plus 0.1-1300 cell blocked (including Aircraft receive). • Dual channel receive capability • FM/FM-W/FM-N/AM plus SSB/CW receive • Ferrite bar antenna for receiving AM • Weather channel RX mode • 435 memories (8 groups of 50 channels) • 3 call channels plus 20 for programmable scan • Multiple scan functions • 7.4V 1550 mAh lithium-ion battery for 5W and extended operation • 16-key backlit pad plus multi-scroll key • Built-in charging circuitry – battery recharges while unit opertaes form a DC supply • Built-in CTCSS enc/decode/DCS • Large 8-character alphanumeric frequency display • Wireless remote control • Battery indicator • Internal VOX • MCP programming software via web (using PG-4P) • Meets MIL-STD 810 C/D/E for resistance to vibration, shock and light rain • 3.438"h x 2.313"w x 1.188"d, 8.8 oz (with battery) **$329.99**

Available Accessories

BT13 AA battery case, **EMC3** Lapel clip mic/earphone PC, **HMC3** VOX/boom mic headset, **PB42L** Lithium ion battery, **PG2W** DC cable, **PG3J** Cigarette cord with filter, **PG4P** PC control cable, **SC51** Softcase with swivel belt clip, **SMC32** Mini right angle speaker mic, **SMC33** Spker mic with remote control, **SMC34** Spker mic with volume function keys

VISUAL ACCESSORY

VC-H1 SSTV Visual Communicator A compact and easy to use portable SSTV unit that is compatible with FM VHF/UHF transcievers along with FM and SSB HF modes. Receive digital images quick (17 seconds download @ 9600 baud). For camping trips, Field Day, or disaster communication. Imagine sending images across town or across the world on VHF/UHF. It also integrates with your PC to store and label all your favorite pictures for future transmission. • 1/4", 270,000-pixel CCD camera • 360-degree rotatable and detachable camera head • 1.8-inch TFT color LCD monitor. Up to 10 picture memory • Built-in microphone and speaker • Connect to a Kenwood handheld, mobile or HF transceiver with an optional cable • Computer connectivity with an optional connection kit • AA alkaline or 110 volt AC adapter operation • Operates all Slow Scan modes • Callsign superimpose • Auto Power Off • Trans-mits to another radio or PC (with power supply and software) • Accepts camera input **$399.99**

Available Accessories

E30335208 16-pin DIN plug/cable, **E59040708** 16-pin DIN plug, **KCT24S** VCH1-to-PC software and cable, **PG4T** VCH1-to-Kenwood FM mobile cable, **SC46P** Protective case

FREE ITEMS included with some radios. See Price Guide for details.

YAESU

*Yaesu prices beyond 9/30/02 were unknown at press date.

SINGLE BAND HTS

VX-150 2M Ultra-Rugged FM HT Designed to perform under the most difficult conditions. Packed with leading edge features. Die-cast aluminum case • High output speaker • Illuminated keypad and OmniGlow™ • 5W with standard battery • Three power output levels • 144–148 MHz tx, 140–174 MHz rx • 209 memories • SmartSearch™ auto memory loading • Keypad with 16 multi-function keys • Two user-definable function keys • Priority monitoring • Dual watch • Alpha-numeric recall • Memory bank and preferential memory scanning • VFO search • Auto repeater shift • ARTS™ • Wide and narrow deviation selection • 1750Hz tone calling • Pro-grammable menu • Battery saver and auto power off • MIL-STD 810D/E rating • 4.2"h x 2.3w x 1.1"d, 11.5 oz **$129.99**

Available Accessories

ADMS1F Programming software, **CN3** BNC-SMA adapter, **CT27** Cloning cable, **CT44** 2-pin speaker mic adapter, **CT53** Packet cable, **EDC5B** DC adapter/filter, **EDC6** DC adapter; plug/wire only, **FBA25** 6 "AA" cell battery case, **FNBV57** 7.2V 1100mA battery, **FNB64** 7.2V 700mA battery, **LCC150/TT** Leather case, **LCC150S/TT** Leather case/swivel, **MH34B4B** Speaker mic, **MH37A4B** Earpiece and mic, **NC72B** Extra wall charger, **VAC400B** One-hr rapid charger, **VC25** VOX headset

MULTI BAND HANDHELDS

FT-50RD/41B Ultra Compact Dual Band VHF/UHF HT High performance, heavy-duty, rugged, state-of-the-art and small enough to put in a pocket. Simple to operate, with all the features you want. • Power output 5/2.8/ 1/0.1W • Transmit: 144–148MHz and 430–450MHz • RX: 76–200, 300–540, 590–999MHz (cell blocked), includes AM aircraft receive, FM narrow and wide • 3 selectable filters • Digital Code Squelch • CTCSS encode/decode • 112 memories plus 2 home channels • High speed scanning • 48-character alphanumeric display • ARTS™ • Dual watch • Digital voice recorder • Windows™ PC programmable • Rear mount battery • MIL-STD 810D/E rating • 3.9"h x 2.25"w x 1.2"d, 11.5 oz.. **$209.99**

Available Accessories

ADMS1E Software, **CA14** Two charging sleeves, **CA15** Charging stand for NC60B, **CLIP10** Spring loaded belt clip, **CN3** BNC-SMA adapter, **CSCV10** Cordura case, **CSC68** Case for unit with FNB41/FBA15, **CSC69** Case for unit with FNB40, **CT27** Cloning cable/CT27A, **CT30** Mic Y adapter, **CT53** Packet cable, **EDC5B** DC adapter/filter, **EDC6** DC adapter; plug/wire only, **FBA15** 4 "AA" battery holder, **FBA21** 6 "AA" battery holder, **FEP10** Earphone, **FNBV47** 7.2V 1100mA battery with belt clip, **FNB41** 9.6V 600mA 5W battery, **FNB42** 9.6V 1100mA 5W battery, **LCC10C** Leather case with clip for unit with FNB41/V47, **LCC10S** Leather case with sleeve for unit with FNB41/V47, **MH30C2B** Speaker mic, **MH34B4B** Speaker mic, **MH37A4B** Earpiece and mic, **NC50** One-hour dual slot charger, **NC60B** Wall charger, **PA17** Battery cable extender, **RH1** Black rubber protector, **RH1R** Orange rubber protector, **VC25** VOX headset, **YHA54** Replacement 2m/440 BNC duck

VX-1R Ultra Compact Dual Band HT Provides superb local communications at power levels of 1W or 500mW. Impressive memory and scanning capabilities in addition to wideband receive which includes VHF and UHF TV audio. AM broadcast, FM broadcast, AM aircraft band, and public safety channels. • Receive ranges: 0.5–1.7MHz (BC Band) 76–108MHz (FM) • 108–137 (AIR) 137–170 (VHF HAM) • 170–222MHz (VHF TV) • 222–450MHz • 470–800MHz (UHF TV) • 800–999MHz • Cell blocked • Transmit ranges: 144–148 MHz • 430–450MHz • 500 mW with standard 3.6V lithium-ion battery (1W at 6V DC) • 291 memory channels • SmartSearch™ • CTCSS enc/decode, digital coded squelch • Backlit keypad • ARTS™ • One-touch emergency system • PC programmable • 6-digit alphanumeric memory labels • 3.2"h x 1.9"w x 1"d, 4 oz **$129.99**

Available Accessories

ADMS1E Windows software, **CN3** BNC-SMA adapter, **CSC71** Soft case, **CT44** 2-pin speaker mic adapter, **CT53** Packet cable, **EDC15** DC adapter, **FBA20** Battery holder, **FEP10** Earphone, **FNB52LI** 3.6V 700mA lithium-ion battery, **MH34B4B** Speaker mic, **MH37A4B** Earpiece and microphone, **NC66B** Two-hour charger, **VC25** VOX headset

VX-5R Tri-Band HT A miniature FM transceiver with extensive frequency coverage of 2M, 6M, 440MHz (including AM and FM broadcast), HF shortwave up to 16MHz and VHF AM aircraft. Super thin profile and durable lightweight design. • 5W (4.5W 430MHz) with standard lithium-ion battery • 50–54, 144–148 and 430–450MHz tx, .5–15.995, 48–728.990 and 800–998.990 MHz wideband rx (cell blocked) • 220 memories plus home channels • 10 auto-scan weather channels • CTCSS enc/decode, DCS • Backlit keypad • ARTS™ • 8-character, alphanumeric display • Time-out timer • Dual watch • Dot matrix LCD • Smart search spectrum analyzer • Temperature display read-out • Barometric pressure sensor option • Automatic power-off • Windows PC programmable • 16-digit 9-memory DTMF autodialer • Busy channel lock out • Innovative multi-section antenna • Aluminum diecast case • MIL-STD 810 rating • 3.4"h x 2.3"w x 1.1"d, 8.9 oz..... **$259.99**

VX-5RS Same radio as the above VX-5R with a silver case **$259.99**

Available Accessories

ADMS1E Windows software, **CD15** Charger stand for NC72B, **CN3** BNC-SMA adapter, **CSC73** Soft case, **CT27** Cloning cable, **CT44** 2-pin speaker mic adapter, **CT53** Packet cable, **EDC5B** DC adapter/filter, **EDC6** DC adapter/plug/wire only, **FBA23** 2 "AA" cell battery case, **FNB58LI** 7.2V 1100mA lithium-ion battery, **MH34B4B** Speaker mic, **MH37A4B** Earpiece and microphone, **NC72B** Extra wall charger, **SU1** Altitude/barometric pressure sensor, **VC25** VOX headset

AES
Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

SINGLE BAND HANDHELDS

Manufacturer	ADI	ADI	ADI	ADI	ALINCO	ALINCO	ALINCO	ALINCO	ALINCO	ICOM	ICOM	ICOM	ICOM
Model	AT-201HP	AT-401HP	PR-52	PR-222	DJ-196T	DJ-296T	DJ-496T	DJ-S11T	DJ-S40T	IC-2GXAT/HP	IC-T2H SPORT	IC-T22A	IC-V8
Band	2 meters	440MHz	6 meters	220MHz	2 meters	220MHz	440MHz	2 meters	440MHz	2 meters	2 meters	2 meters	2 meters
Rx Range (MHz)	130-179	420-470	40-54	216-228	135-174	222-225	430-450	144-148	425-450	144-148(8)	136-174	136-174	136-174
Aircraft Rx	No	No	No	No	No	No	No	No	No	No	No	No	No
Power Output	5W	5W	5W	5W	5W	5W	5W	340mW	500mW	7W	6W	5W(9)	5.5W
Touch-Tone Pad	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes
Tone Encode	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes(4)
Tone Decode	Yes	Yes	Yes	Yes	Yes(4)	Yes(4)	Yes(4)	No	Yes	Yes	Yes	Yes	Yes(4)
Memories	40	40	40	40	40	40	40	21	100	43	40	80/40(10)	100
Alphanumeric	No	No	No	No	Yes	Yes	Yes	No	No	No	No	Yes	Yes
Battery Type	Ni-Cad	Ni-Cad	Ni-Cad	Ni-Cad	Ni-Cad	Ni-Cad	Ni-Cad	AA	AA	Ni-Cad	Ni-Cad*	Ni-Cad	Ni-Cad
PC Programmable	No	No	Yes	Yes	No	No	No	No	No	No	Yes	No	Yes
Antenna Conn	BNC	BNC	TNC(1)	BNC	BNC	BNC	BNC	Fixed(7)	SMA	BNC	BNC	BNC	BNC
Size (h/w/d, in.) Weight (oz.)	3.3/2.2/1.2 6.6	3.3/2.2/1.2 6.6	4.25/2.0/0.75 14.5	4.25/2.0/0.75 14.5	4.9/2.2/1.6 13.2	4.9/2.2/1.6 13.2	4.9/2.2/1.6 13.2	3.9/2.2/1.1 2.72	4.0/2.2/1.2 3.5	4.9/2.2/1.4 12.9	4.5/2.3/1.3 14.8	4.8/2.3/1.1 10.9	5.2/2.1/1.4 12.3

Manufacturer	KENWOOD	YAESU
Model	TH-22ATH	VX-150
Band	2 meters	2 meters
Rx Range (MHz)	136-174	140-174
Aircraft Rx	No	No
Power Output	5W	5W
Touch-Tone Pad	Yes	Yes
Tone Encode	Yes	Yes
Tone Decode	TSU-8	Yes
Memories	41	200
Alphanumeric	No	Yes
Battery Type	Ni-Cad	Ni-Cad
PC Programmable	No	Yes
Antenna Conn	BNC	SMA
Size (h/w/d, in.) Weight (oz.)	4.6/2.2/1.0 10.2	4.3/2.3/1.0 11.5

*Only alkaline case included
(1) TNC ant. jack commonly found on cell & commercial equip.
(4) Standard CTCSS plus DCS
(6) Guaranteed 440-450MHz only
(7) Folding ant. attached. 2m ant. - telescopic, 70cm - flex.
(8) Expandable to 136-174
(9) With external 13.8V
(10) 80 without Alphanumerics, 40 with Alphanumerics
(12) 1W on 1.2 gHz
(13) Dual operation between Voice & Data
(14) 1W with wall cube or cigarette adapter
(15) 6-character alphanumeric through software
All radios are cell blocked

FREE ITEMS included with some radios.
See Price Guide for details.

MULTI BAND HANDHELDS

Manufacturer	ALINCO	ALINCO	ALINCO	ICOM	ICOM	ICOM	ICOM	ICOM	KENWOOD	KENWOOD	KENWOOD	YAESU	YAESU	YAESU	YAESU
Model	DJ-596T	DJ-C5T	DJ-V5TH	IC-Q7ABC	IC-T7H	IC-T81A	IC-T90A	IC-W32A	TH-D7A(G)	TH-F6A	TH-G71A	FT-50RD/41B	VX-1R	VX-5R & VX-5RS	VX-7R
Tx Range (MHz)	144-148 420-450	144-148 420-450	144-148 438-450	144-148 440-450	144-148 440-450	50-54, 144-148 440-450	50-54 144-148 430-450	144-148 440-450	144-148 430-450	144-148 222-225 430-450	144-148 430-450	144-148 430-450	144-148 430-450	50-54 144-148 430-450	50-54, 144-148 222-225 430-450
Rx Range (MHz)	136-174 400-512	118-174 420-450	76-999	30-1300	118-174 400-470	50-54, 74-174 400-470 1240-1300	.495-999.99	118-174 400-470	118-174 400-480	0.1-1300	118-174 400-470	76-200 300-540 590-999	.5-1.7 76-999	0.5-16 48-729 800-999	.5-16 48-730 800-900
Single/Multi Rx	Single	Single	Single	Single	Single	Single	Single	Dual	Single(13)	Dual	Single	Single	Single	Single	Dual
Aircraft Rx	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Power Output	5W	300mW	5W	350mW	6W	5W(12)	5W	5W	5W	5W	5W	5W	500mW(14)	5W	5W (300mW/222)
Memories	100	50	200	200	70	124	555	200	200	435	200	112	291	220	220
CTCSS	Enc/Dec/DCS	Enc/Dec	Enc/Dec	Enc/Dec	Enc/Dec	Enc/Dec	Enc/Dec/DCS	Enc/Dec	Enc/Dec	Enc/Dec/DCS	Enc/Dec	Enc/Dec/DCS	Enc/Dec/DCS	Enc/Dec/DCS	Enc/Dec/DCS
TTP	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Alphanumeric	Yes	No	Yes	No	No	Yes(15)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
PC Programmable	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	TBA
Battery Type	Ni-Cad	Li-ion	Ni-Cad	Ni-Cad	Ni-Cad	Ni-MH	Li-ion	Ni-Cad	Ni-Cad	Li-ion	Ni-Cad	Ni-Cad	Li-ion	Li-ion	Li-ion
Ant.Connector	BNC	Fixed	SMA	SMA	BNC	SMA	SMA	BNC	SMA	SMA	SMA	SMA	SMA	SMA	SMA
Size (h/w/d, in.) Weigh (oz.)	4.9/2.2/1.6 13.2	3.7/2.2/0.4 3.2	3.8/2.3/1.3 12	3.8/2.3/1.1 6.4	4.8/2.3/1.1 14.3	4.3/2.3/1.2 9.9	3.4/2.3/1.2 8.5	5.5/2.3/1.4 16	4.7/2.1/1.7 13.4	3.4/2.3/1.2 8.8	4.4/2.1/1.3 11.6	3.9/2.3/1.2 11.5	3.2/1.9/1.0 4	4.1/2.4/1.3 10	3.5/2.3/1 19.6

YAESU

*Yaesu prices beyond 9/30/02 were unknown at press date.

VX-7R **Ultra-Rugged, Submersible Magnesium FM Triband HT** With a full 5W output on 50, 144 and 430MHz FM, the 5R also offers bonus coverage on 222MHz FM band at 300mW. The rugged design allows the unit to be submersible at 3' for 1/2 an hour and it sports rubber bumpers, all for JIS-7 specification protection. • 500kHz to 999MHz continuous receive (cellular blocked) • Four simultaneous dual receive modes • Over 900 memories including 40 memory scan band limit, 10 home channels and 10 weather • Built-in CTCSS/DCS enc/decode • "Split Tone" capability • Auto-Range Transponding System • Easy-to-read display with an array of graphical and pictorial tools – user-changeable icons and fonts • Full-color strobe LED • Spectrum scope display • 24-hour clock • On/Off timers • Internet key for instant access to WIRES™ internet-linking • "Quick-Draw" swivel-mount belt clip • 7.4V 130mAh lithium-ion battery • 2.4"w x 3.5"h x 1.1"d, 9.2 oz..... **$369.99**

Available Accessories

CD15A Rapid charger, **CMP460A** Waterproof speaker/mic, **CN3** BNC-SMA adapter, **CSC88** Soft case, **CT91** Microphone adapter, **EDC5B** DC adapter/filter, **EDC6** DC adapter/plug/wire only, **FBA23** 2 "AA" cell battery case, **FNB80LI** 7.4V 1300mA lithium-ion battery, **MH57A4B** Speaker/mic, **SU1** Altitude/barometric pressure sensor, **VC27** Earpiece/mic

ALINCO

AMATEUR RADIO'S VALUE LEADER™

HF RADIOS

DX-70TH **Compact HF** Covers 160-6M • 150kHz-30MHz and 50-54MHz receive • SSB, CW, AM, FM • 100W (AM 40W) • Detachable face • 100 multi-function memories • Two VFOs • Easy split operation mode • Multi-function control • Narrow filter • Noise blanker • Speech processor • CTCSS for 10M and 6M repeaters • Full, semi or auto break-in CW • All mode squelch • General coverage receiver • Quick offset • Two scan modes • Separate antenna terminals for HF and 6M • RIT • TXIT • Selectable AGC • RF gain control • Dial lock • Automatic antenna tuner interface • MARS/CAP capability • 2.25"h x 7"w x 9"d, 8.3 lbs..... **$749.99**

Available Accessories

DM330MVT 30 amp switching power supply with meter, **DM340MVT** 30 amp power supply with meters, **EBC8** Front control head bracket, **EBC9** Extra mobile bracket, **EDS4** 5' remote mount accessory cable kit, **EDS5** 5' mic extension cable, **EDS6** 15' remote cable, **EDX2** 160-10M auto wire tuner, **EMS14** Desk mic, **PC25** DC cable

DX-77T 160-10M • 500kHz-30MHz general rx • SSB/CW/AM/FM • 100W (AM 40W) • 100 multi-function memories • Two VFOs • PC control via optional cable and software • Direct digital synthesis • Easy split operation mode • Multi-function control • CW narrow filters • Noise blanker • 6–50 WPM electric keyer • Full, semi or auto break-in CW • All mode squelch • Quick offset • Two scan modes • RIT • High/low power setting control • Selectable AGC • RF gain control (RX) • Dial lock • Auto antenna tuner interface • Industry standard power input plug • MARS/ CAP capability • Requires 13.8V DC @ 20A • 3.6"h x 9.5"w x 9"d, 8.3 lbs. **$699.99**

Available Accessories

DM330MVT 30 amp switching power supply with meter, **DM340MVT** 30 amp power supply with meters, **EDS5** 5' mic extension cable, **EDX2** 160-10M auto wire tuner, **EMS14** Desk top microphone, **ERW4** PC cable, **PC25** DC cable

ICOM

HF RADIOS

IC-706 MK II-G **Compact HF/VHF/UHF All Mode** Base station performance and features in a mobile-sized package. Frequency coverage is expanded to include 70cm and power is increased for 2M. Plus, enhancements and added features and functions. • 160–10M + 6M, 2M and 70cm • 0.03–200MHz broadband receive with wide AM and wide FM broadcast • 100W (40W AM) from 160–6M, 50W (40W AM) on 2M, 20W (8W AM) on 70cm • RTTY • PSK31 • AF speech compressor • 107 alphanumeric memories • Detachable control panel • 2 filter slots • AF-DSP • Tone encode, scan and squelch • Cross band split • Noise blanker • IF shift • Preamp/attenuator • CW keyer • CW pitch control/reverse • Full break-in • VOX • Simple bandscope • SWR graphic sweep display • One-button duplex and auto repeater • Large built-in speaker • 2 antenna connectors • Requires 13.8V DC @ 20A • 6.6"w x 2.3"h x 7.9"d, 5.5 lbs..... **$839.99**

Available Accessories

BET706TUNECONT Better RF IC706 tune control, **AH2B** Whip with mount, **AH2BWHIPONLY** Extra whip only for AH2B, **AH4** 80-6M 120W auto wire antenna tuner, **AT180** HF+6M auto coax antenna tuner, **CR282** Stability crystal, **CT17** Level converter, **FL100** 500Hz 9MHz IF CW filter, **FL101** 250Hz 9MHz IF CW filter, **FL103** 2.8kHz 9MHz IF SSB filter, **FL223** 1.9kHz 9MHz IF SSB filter, **FL232** 350Hz 9MHz IF CW/RTTY filter, **HM118TN** TTP microphone, **MB62** Mounting bracket for main unit, **MB63** Mounting bracket for control panel, **MB65** Mounting base platform, **MB72** Carrying handle, **OPC025D** DC cord, **OPC581** 11.5' separation cable, **OPC587** 16' separation cable, **OPC589** 8-pin mic jack adapter cable, **OPC598** 23' extension cable for AT180, **OPC599** 7+8-pin–13-pin adapter, **OPC742** 13-pin cable, **PS125** 25A switching power supply, **RMK706** Remote mounting kit, **SM20** Stand mic for base station, **SM6** Electret desk mic, **SP10** Slim-line external speaker, **SP7** Small external speaker, **UT102** Voice synthesizer

IC-718 **HF All Band Transceiver** Advanced features and performance, yet easy to use. Its simplfied operation is perfect for beginners or great as a back-up rig. • Covers 160–10M • Continuous receive coverage 0.03–30MHz • 100W output (40W AM) • Built-in USB, LSB, CW, RTTY (FSK) and AM • 101 memories • Variety of scanning functions • Front mounted loudspeaker • IF shift • Microphone compressor • RF gain control • Noise blanker • RF attenuator and preamp • Auto notch • Ample CW features include an electronic keyer • VOX • Flexible filter selection • Digital S/RF meter • High frequency stability • Optional voice synthesizer and DSP capability • Hand mic included • Requires 13.8VDC @ 20A • 9.4"w x 3.75"h x 9.4"d, 8.5 lb.... **$599.99**

Available Accessories

AH2B Whip with mount, **AH2BWHIPONLY** Extra whip only for AH2B, **AH4** 80-6M 120W auto wire antenna tuner, **AT180** HF+6M auto coax antenna tuner, **CR338** High stability crystal, **CT17** Level converter, **FL222** 1.9kHz 455kHz IF SSB filter, **FL257** 3.3kHz 455kHz IF SSB filter, **FL52A** 500Hz 455 kHz IF CW filter, **FL53A** 250Hz 455kHz IF CW filter, **FL96** 2.8 kHz 455kHz IF SSB filter, **MB23** Carrying handle, **MB5** Mobile mount, **OPC025D** DC cable, **OPC598** 23' extension cable for AT180, **PS125** 25A switching power supply, **SM20** Stand mic for base station, **SM6** Electret desk mic, **SP20** Speaker with audio filter, **SP21** Speaker, **SP7** Small external spker, **UT102** Voice synthesizer, **UT106** DSP

FREE ITEMS included with some radios. See Price Guide for details.

IC-775DSP **HF All Band Transceiver** • Covers 160–10M • 100kHz–29.995MHz continuous receive • All mode, including PSK-31 • Data mode • Power MOS FET PA section • 200W output (50W AM); continuous duty cycle • Preamp and attenuator • Channelized quick split function • RF speech compressor • Triple band stacking register • Transmit and receive DSP • Digital noise reduction and PSN • Noise blanker with adjustable level and width • Audio peak filter • Dual watch • Dual tuning knobs • Twin pass band tuning • Accomodates up to 11 filters, 6 filters installed, accepts up to 5 more • Built-in memory keyer • Electronic keyer function • CW pitch control • CW reverse • QSK • Double key jack • Large, easy-to-read amber display • PC programmable • Built-in heavy-duty power supply • Auto antenna tuner and selector • 16.7"w x 5.9"h x 15.4"d, 36.8 lb ..... Closeout **$3299.99**

Available Accessories

CR282 Stability crystal, **CT17** Level converter, **FL101** 250Hz 9MHz IF CW filter, **FL102** 6kHz 9MHz IF AM filter, **FL222** 1.9kHz 455MHz IF SSB filter, **FL223** 1.9kHz 9MHz IF SSB filter, **FL257** 3.3kHz 455kHz IF SSB filter, **FL53A** 250Hz 455kHz IF CW filter, **HM36** Scanning hand mic, **MB19** Rack mounting handles, **SM20** Stand mic for base station, **SM6** Electret desk mic, **SP20** Speaker with audio filter, **SP21** Speaker, **UT66** Voice synthesizer

Amateur Super Heroes

HF/VHF/UHF Multi-Mode Transceiver

TS-2000

Triband 144/220/440 MHz

TH-F6A

FREE United We Stand Pin with every Radio purchase

Limited time only while supplies last

See your dealer for details

KENWOOD

Amateur Radio Products Group

3975 Johns Creek Court, Suwanee, GA 30024
P.O. Box 22745, Long Beach, CA 90801-5745, U.S.A.
Customer Support: (310) 639-4200 • Fax: (310) 537-8235

INTERNET

Kenwood Website:
http://www.kenwood
Kenwood Information:
ftp://ftp.kenwood.net

02ARD-2199 #090502

Versatility Superiority

Free Pin
w/every radio purchase

TH-22AT
2 meters

TH-G71A
2 meters
& 440 MHz

TH-D7A(G)
2 meters
& 440 MHz

TH-F6A
2 meters & 220MHz
& 440 MHz

VC-H1
Visual
Communicator

TM-261A/461A
2 meters/440 MHz

TM-541A
1200 MHz

TM-331A
220 MHz

TM-742AD/642AD
2 meters & 440 MHz/2 meters & 220 MHz

TM-G707A
2 meters & 440 MHz

TM-V7A
2 meters & 440 MHz

TM-D700A
2 meters & 440 MHz

TS-50S
Compact HF All Mode

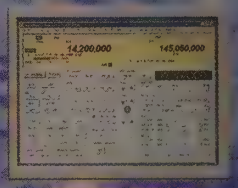
TS-570D/S(G) w/DSP
HF All Mode or HF + 6m All Mode

TS-870S w/DSP
HF All Mode

TS-2000
HF/VHF/UHF Multi-Mode

TS-B2000
HF/VHF/UHF Multi-Mode

RC-2000
Compact Mobile Controller



ARCP-2000
PC Radio
Control Program

KENWOOD
COMMUNICATIONS CORPORATION

AMATEUR RADIO PRODUCTS GROUP
3975 Johns Creek Court, Suwanee, GA 30024
P.O. Box 22745, Long Beach, CA 90801-5745, U.S.A.
Customer Support: (310) 639-4200 Fax: (310) 537-8235

ISO 9001
JQA-1205
Communications Equipment Division
Kenwood Corporation
ISO9001 certification

INTERNET
Kenwood Website
http://www.kenwood.net
Kenwood Information
ftp://ftp.kenwood.net

*Limited time only while supplies last. See your dealer for details.

ICOM

IC-756PROII **HF/50MHz All Mode Transceiver** 32 bit floating point DSP digital IF filter with 41 selectable bandwidths, microphone equalizer, manual notch function, TFT 5" color LCD (with selectable background colors and schemes), digital twin passband tuning (PBT), all mode, including PSK31. • Continuous receive 0.03-60MHz • 100W (AM 75W) • 101 memories • AGC loop management • Edge cutting IF filter • RF speech compressor • Twin peak audio filter • DPSN • RTTY demodulator • Digital noise reduction • CW wave form • Spectrum scope • Digital voice memories • Highly stable transmitter • Digital twin PBT • High performance memory keyer • Analog and digital meters • Set mode condition list • Complete CW features • Dual watch • Mem-ory pad • Triple band stacking register • Quick split function • Built-in antenna tuner • RIT and ΔTX control for main and sub-band • Dual antenna system • VOX • 2-level preamp and 3-level attenuator • Auto TS function • CI-V interface capability • Scanning functions • CTCSS tone encoder • Improved third intercept point, sensitivity and RX audio fidelity • Selectable digital filter shape CW and SSB • Noise blanker level control • Lower floor noise level in the band scope • DVR operation with band scope enabled • External control of keyer • Independent digital and voice mode filter settings • Disable compression in digital modes • 1/4 tuning steps in digital modes • SSB/CW synchronous tuning • 13.3" w 4.3"h x 11.2"d, 21 lbs **$2969.99**

Available Accessories

AH2B Whip with mount, **AH2BWHIPONLY** Extra whip only for AH2B, **AH4** 80-6M 120W auto wire antenna tuner, **CT17** Level converter, **HM36** Scanning hand mic, **OPC025D** DC cable, **PS125** 25A switching power supply, **SM20** Stand microphone for base station, **SM6** Electret desk microphone, **SP20** Speaker with audio filter, **SP21** Speaker, **UT102** Voice synthesizer

FREE ITEMS included with some radios. See Price Guide for details.

Look For This

NEW

& Check Out AES' Latest Additions.

IC-746PRO **HF/VHF All Mode Transceiver** With solar cycle 23 geared up, all hams can take advantage of better HF propagation conditions, night and day! • 160–10M + 6M + 2M • Continuous receive 0.03–60MHz, 108–174MHz • 100W (40W AM) • 32-bit floating point DSP and 24-bit AD/DA converter • AGC loop management • IF filter width and shape variable • All mode signal modulation and demodulation • RTTY demodulator and decoder • Digital twin PBT capability • 100 memories • 10 "memo pad" memories • PSK-31 • Built-in auto antenna tuner for HF/6M • 2 antenna connectors for HF/6M • IF-DSP noise reduction, auto notch and selectable audio peak filters • Noise blanker • Spectrum scope • Twin passband tuning • Triple band stacking register • 2-step preamp • RF speech compressor • Tone squelch and scan • VOX • SmarTune™ variable speed tuning • Auto repeater duplex setting • Quick split • CW pitch control • QSK • Memory keyer with 4 memories • QSO serial number generator • Transmit audio monitor • Hand mic with up/down frequency control • Requires 13.8V DC @ 20A • 11.3"w x 4.7"h x 12.5"d, 19.6 lbs **$1899.99**

Available Accessories

AH2B Whip with mount, **AH2BWHIPONLY** Extra whip only for AH2B, **AH4** 80-6M 120W auto wire antenna tuner, **CR338** High stability crystal unit (for PRO version only), **CT17** Level converter, **OPC025D** DC cable, **PS125** 25A switching power supply, **SM20** Stand mic for base station, **SM6** Electret desk mic, **SP20** Speaker with audio filter, **SP21** Spker, **UT102** Voice synthesizer

DUAL BAND BASE STATION

IC-910H **VHF/UHF All Mode Transceiver** The successor to the IC-821H, but with the optional 1200MHz installed, it becomes an SSB/CW/FM tribander. • 144-148, 430-450 and 1240-1300MHz (option) • Memories: 99 regular, 1 call, 6 scan edges for each band, 10 satellite • 5-100W (2m), 5-75W (440MHz), optional 1-10W (1200MHz) • 3.5" multi-function LCD, 10-key direct enty keypad • Satellite mode operation support • 9600bps packet • Simultaneously works 2 bands in receive and full duplex • CW full support • Versatile scanning functions • Memory pad • 50 tone CTCSS encoder • One-touch and auto repeater functions • Speech compressor • IF shift • VOX • RIT • Optional PC compatibility • Requires 13.8V DC @ 23A • 9.5"w x 3.6"h x 9.4"d, 10 lbs..... **$1199.99**

Available Accessories

AG1200 1.2gHz mast mount preamp, **AG25** 2M mast mount preamp, **AG35** 430 mast mount preamp, **CR293** High stability crystal unit, **CT17** Level converter, **FL132** 500Hz main receiver CW filter, **FL133** 500Hz sub-band receiver CW filter, **MB23** Carrying handle, **MB5** Mobile mount, **PS125** 25A switching power supply, **SM20** Stand mic for base stations, **SP10** Slim-line external speaker, **SP7** Small external speaker, **UT102** Voice synthesizer, **UT106** DSP unit, **UX910** 10W 1.2gHz module

KENWOOD

HF RADIOS

TS-50S **HF Transceiver** • Covers 160–10M • General coverage receive 500kHz–30MHz • 100W output SSB/CW and FM (AM 25W) • 100 memory channels • Multiple scan functions • Powerful menu system • Dual VFOs • Comprehensive interference reduction • Full and semi break-in • CW reverse mode • All-mode squelch • IF shift • Switchable AGC • 20dB attenuator • Noise blanker • Multi-function hand mic • 7"w x 2.3"h x 9.1"d, 6.4 lbs..... **$689.99**

Available Accessories

AT50 HF external auto tuner, **KPS15** 23A switching power supply, **MC47** 8-pin hand mic, **MC60A** 8-pin amp desk mic, **MC80** 8-pin electret desk mic, **PG2Y** DC cable, **PG2Z** 6.5' heavy-duty DC cable, **PG4M** 18' extension cable for the AT50, **PS53** Heavy-duty power supply, **SO2** TCXO unit, **SP23** Speaker, **TC50** Travel case, **YK107C** 500Hz CW filter

TS-570D(G) **HF Transceiver** • Covers 160–10M • General coverage receive 500kHz–30MHz • Variable output: 5-100W SSB/CW/FM and FSK (AM 25W) • 100 memories with extensive functions • Large amber-colored backlit LCD display • 10-key direct entry • 46 EZ-to-use menu functions • Multiple scanning functions • 16-bit AF-stage DSP VOX • XIT/RIT • IF shift • Noise blanker • All mode squelch • TX audio shaping • Built-in electronic keyer • Full and semi break-in CW • CW message memory • CW auto tune • 38 tone CTCSS encoder and 1750Hz tone • TX audio shaping • Packet and FSK • PC control option • Two antenna ports and packet port • Built-in automatic antenna tuner • Requires 13.8V DC @ 20.5A • 10.6"w x 3.7"h x 10.6"d, 15 lbs..... **$889.99**

TS-570S(G) **HF+6M Transceiver** Features are the same as the TS-570D(G) (above) but covers 160–10M plus 6M. General coverage receiver range includes 50–54MHz **$1059.99**

Available Accessories

DRU3A Digital recording unit, **KPS15** 23A switching power supply, **MB430** Mobile mounting bracket, **MC43S** 8-pin hand mic, **MC60A** 8-pin amp desk mic, **MC80** 8-pin electret desk mic, **MC90** 2-head DSP desk mic, **PG2Y** 13' DC cable, **PG2Z** 6.5' heavy-duty DC cable, **PS53** Heavy-duty power supply, **SO2** TCXO unit, **SP23** Speaker, **VS3** Voice synthesizer, **YK88CN1** 270Hz CW filter, **YK88C1** 500Hz CW filter, **YK88SN1** 1.8kHz SSB filter

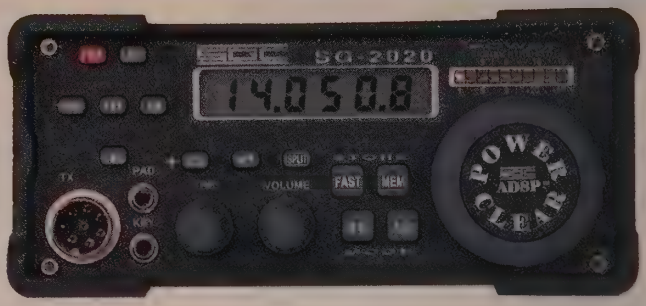
We accept I.M.P.A.C.® Government Credit Cards

www.sgcworld.com

No Compromise Communications

The SG-2020 - Now with ADSP

Adaptive Digital Signal Processing
Eliminates noise for unsurpassed signal quality



For the first time ever, the popular SG-2020 radiotelephone is available with optional digital signal processing. Receive clearer AM, FM, SSB, CW, and data. Designed as a small, low power, low cost USB/LSB/CW/HF-SSB travel companion. Take it and use it anywhere - fixed, mobile, portable, aviation or boating. Operating from 12V DC, it has the lowest current consumption on the market. Transmit power is adjustable from 0-20W PEP output & covers 1.8 to 29.7 MHz. An RF speech processor utilizing VOGAD baseband processing & RF clipping provides plenty of DX "talk-power". A back lit LCD display shows a 100Hz freq. resolution (10Hz overall res.). There are 20 Simplex or Semi-Duplex memories to store favorite operating frequencies. Other functions and features include: SPLIT, RIT, XIT and tunable 100 to 2700Hz A.F. Bandpass. Also, a noise blanker, a fully adjustable (5 to 60 WPM) IAMBIC "B" mode keyer and convenient SWR metering and battery voltmeter. Dynamic hand microphone is included. "Smallest" portable rig, only 7"L x 5.9"W x 2.75"H, 4.4 lbs.

SG-2020 with ADSP - SGC Cat. #05-02 - $795.99
SG-2020 without ADSP - SGC Cat. # 05-01 - $675.99

SG-2000 - HF Single Sideband Radio Telephone

Make contact anywhere with the power-packed SG-2000. Engineered for simple and efficient operation, the SG-2000 features an alarm generator, upper/lower sideband, true amplitude modulated (AM) receiver and channel scan as standard features. Talk anywhere in the world on the HF Ham bands, receive and send time sensitive documents, decode UPI transmissions, get latest weather reports or listen to shortwave broadcasts from around the world. Scan all ITU channels and up to 100 memory channels in adjustable scan speeds and rates. An extra large wide angle display with adjustable backlighting provides easy viewing day or night. The SG-2000 can be fully computer controlled by any standard RS-232 protocol connector for RTTY, ARQ (SITOR), FEC, Packet and telegraphy modes. Fast RX/TX switching time ensures easy and secure data transmissions. The compact front panel of the SG-2000 can also act as the remote head terminal, and up to 8 full function remote heads can be utilized.

- Power Output: 150 watts PEP
- Transmitter frequency range: -1.8 to 30 MHz
- Receiver frequency range: 500kHz to 30 MHz
- Modes; A3A, ASH, A3J,CW, AM
- Channels: 100 channels field programmable, 644 channels factory programmed ITU and data.
- Scan Channels: Up to 100 programmable in 10 groups
- Power Requirement: 13,6 VDC; 0.8A RX - 16A TX
- Size: 15"L x 10"w x 4 3/4"H • Weight: 12 lbs

SG-2000 - SGC Cat. #04-01 - $1599.99
SG-2000 Powertalk with ADSP - SGC Cat. #04-10 - $1849.99

The SG-500 SmartPowerCube

Tremendous power - nearly as much as a 1000W amplifier, but requiring less than one cubic foot of space, the SG-500 is an intelligent, microprocessor-controlled high power linear amplifier. Its electronic brain constantly monitors your HF-SSB's activities, power needs, and antenna condition, and instantaneously selects the right broadband filter. Designed to perform reliably and essentially unattended, in the most demanding conditions.

• Covers: 1.8 to 24 MHz (Overseas model - up to 30MHz) • Power Output: SSB: 500W PEP; CW: 500W for 10 minutes, no fan; 500W unlimited with fan; AM: 250W carrier maximum • Automatic bandswitching • Protection: Input overdrive, over current, over temperature • Size: 12 1/4"L x 11 1/4"W x 6"H

SG-500 - SGC Cat. #52-96 - $1249.99

MADE IN USA

SGC

Smart technology. Smart design. Smartuners.

SG-237 Smartuner
100W Antenna Coupler

The SG-237 Smartuner series is perfect for marine, aviation, commercial and amateur appications and any application type. The SG-237 is designed with high density surface mount components on a 4 layer PCB, providing high efficiency, reliability and performance. Rugged waterproof construction allows tough operation in any environment. • Cat. #54-18 standard version $359.99 • Cat. #54-20 Porta. Designed for quick mobile or base set up. Special Order • Cat. #54-19 PCB only - For retrofit or special projects $249.99

1.8-60 MHz • Power Input Range 3-100W PEP • Weight 2 lbs. • 9"L x 7"W x 1.85"H

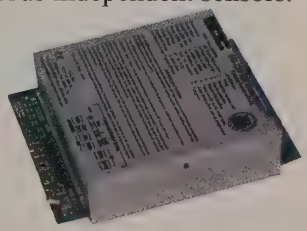
SG-231 Smartuner
100W Antenna Coupler

Complete frequency agility with no operator intervention • Compact design, fits the most restrictive installations • Waterproof case allows mounting at antenna feed point for highest efficiency. • SWR always 1:1.5 or better. Tuning solutions are stored in a non-volatile memory for fast (10ms) automatic recall. Operates with any HP or VHP transceiver, 3 to 100W, and requires only 12VDC and RP connections.

1-60 MHz • Power Input Range 3 to 100W PEP • Weight 3 lbs. • 11.5"L x 9.5"W x 1.7"H • SGC Cat. #54-17 • $529.99

New This Year - The SG-239
Tiny High-Performance Coupler

Performance features of the SG-239 are far ahead of its low price tag. The unit will work with silent receiver tuning or within the range of 1.5 to 200 watts with a high power transceiver. It has fast, accurate tuning via numerous independent sensors. 1.8-30MHz • 1.5-200W PEP • Weight 2 lbs. • 7.5"L x 6"W x 1.85"H • SGC Cat. #54-22 • $249.99



SG-230 Smartuner
200W Antenna Coupler

The SG-230 precisely tunes any length antenna - 8 to 80 ft. in the HF band. The Smartuner automatically evaluates and switches 64 input & 32 output capacitance combinations, plus 256 inductance combos in a "pi" network (over a half million possible combinations). The amazing result - it automatically selects from over a half-million different ways to ensure a perfect match for your transceiver. It also remembers the chosen frequency and tuning values in less than 10 ms, each time you transmit.

1.8-30 MHz • Power Input Range 3-200W PEP • Weight 8 lbs. • 16"L x 12"W x 3"H • SGC Cat. #54-14 • $489.99

SG-235 Smartuner
500W Antenna Coupler

The most powerful coupler on the market - The SG-235. The SG-235 automatically tunes any length antenna from just 23 ft. long without preliminary tuning or adjustments. The chosen frequency and tuning values are remembered allowing reselection of those values in less than 10 milliseconds, each time you select that frequency. Flexibility is a key feature with its attractive options, including 24V DC.

1.8 to 30 MHz range • Power Input Range 3-500W PEP • Tunes from 23 ft, antenna at full power • Waterproof • Weight 8 lbs. • 16"L x 12"W x 3"H • SGC Cat. #54-15 • $1169.99

Not sure which coupler is right for you? Go to *www.sgcworld.com/compare* for a full Smartuner comparison chart.

Q.M.S. - Quick Mount System
Complete mobile kit - works with any vehicle

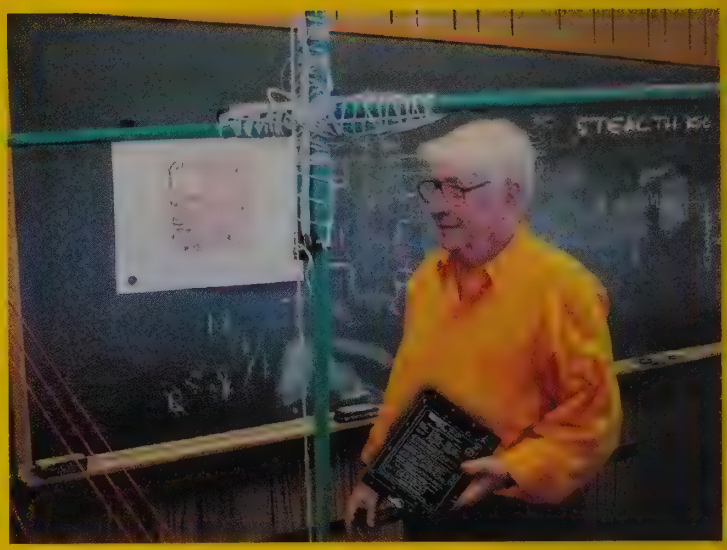
Add a QMS to your HF SSB mobile system - an SGC Smartuner along with an efficient whip antenna. The QMS can be installed on any vehicle without drilling any holes or damaging the car body. Installation can be permanent or temporary and just takes 15 minutes. Mount the QMS on the vehicle side, trunk, or roof.

All kits include strapping antennas, four suction cups and mounting hardware.

- **SGC #55-47:** QMS-2: Includes SG-230 coupler, SG-303 9 ft. antenna - **$895.99**
- **SGC #55-48:** QMS-3: Includes SG-235 coupler, SG-303 9 ft. antenna - **$2169.99**
- **SGC #55-49:** QMS-7: Includes SG-231 coupler, SG-307 7 ft. antenna - **$1249.99**
- **SGC #55-50:** QMS-37: Includes SG-237 coupler, (Optional antenna available) - **$549.99**

Copyright 2002 SGC, Inc.

A letter from Pierre Goral, President of SGC



We are very excited to introduce our newest product, the STEALTH Kit, into the HF market. With the STEALTH Kit, SGC is providing an all-in-one, convenient antenna solution that is perfect for emerggency use, when an urgent communications command center must be setup in minutes. The STEALTH Kit contains everything a novice or professional needs to erect an antenna in any location—and provides performance equivalent to most dipole antennas!

The introduction of this new antenna kit eliminates much of the mystery of HF "maggic." The STEALTH Kit (Smart Tuning, Emergency Antenna Loop, Tactical HF Kit) provides a solution of how to achieve clear HF communications quickly and easily.

And, in keeping with its name, the STEALTH Kit is an ideal antenna solution for restricted areas, such as condominiums and gated communities where dipoles and towers are forbidden. Or, use it in city apartements where access to roofs or large open areas is restricted. It is also a ggreat antenna solution when you are on vacation. Whether in an RV or a hotel room, the STEALTH Kit is a "Grab and Go" box - filled with everything you need to complete your communications center.

We are proud of the STEALTH Kit as it provides an antenna system that is automatic, easy to install and easy to use. Any locations, any radio and any situation - the STEALTH Kit is the perfect choice for a quick and convenient antenna solution.

Since 1971, SGC has been designing and manufacturing a wide range of HF SSB communications products. Our goal is to provide reliable equipment, which is competitively priced and which fits the need of the radio user. Please visit our booth in Dayton this year to see the STEALTH Kit in action and find out what everyone is talking about.

Pierre Goral

KI7UA

The STEALTH Kit

Kit includes all of the following item

- SG-237 Smartuner
- SG-237 Manual
- STEALTH Kit Manual
- 80' (25m) of loop antenna wire
- 30' (9m) of nylon support rope with cl
- 4 antenna mounting clips and ropes
- 2 spare antenna mounting clips
- 12 reusable cable ties

AMERICAN TECHNOLOGICAL LEADERSHIP MADE IN USA

SGC

13737 SE 26th St., Bellevue, WA 98005 USA
Phone: 425-746-6310
Fax: 425-746-6384
E-mail: sgc@sgcworld.com
Web: www.sgcworld.com

KENWOOD

TS-870S All Mode HF Transceiver • Covers 160–10M • General coverage receive 100kHz–30 MHz • 100W output SSB/CW/FM/FSK (25W AM) • 100 memory channels • Multiple scanning modes • Menu function • Variable AGC • IF digital filter (DSP) • DSP detection • Dual mode noise reduction • Automatic notch filter • Voice equalizer • Speech processor • Transmit equalizer VOX • QSK digital IF filter • DSP noise reduction • IF stage auto-notch beat cancel function • Variable AGC circuit • Built-in electronic keyer • CW pitch control • CW reverse • Radio control software program • Auto antenna tuner on transmit and receive • Built-in antenna tuner dual antenna terminals • External receiver antenna output jack • EZ menu system CTCSS encoder • High quality digital recording option • RS-232C port • Requires 13.8V DC @ 20.5A • 13"w x 4.75"h x 13"d, 25 lbs..... **$2299.99**

Available Accessories

DRU3A Digital recording unit, **KPS15** 23A switching power supply, **MC43S** 8-pin hand mic, **MC60A** 8-pin amp desk mic, **MC80** 8-pin electret desk mic, **MC90** 2-head DSP desk mic, **PG2Y** 13' DC cable, **PG2Z** 6.5' heavy-duty DC cable, **PS52** Heavy-duty power supply, **SO2** TCXO, **SP31** External speaker, **VS2** Voice synthesizer

TS-2000 HF/VHF/UHF All Mode Transceiver Offers 3 platforms: traditional transceiver with full function front panel, high-tech looking "silver box" version (TS-B2000), or computer controlled with software • 100W output on HF, 6M and 2M; 50W on 70cm; 10W on 1.2gHz (optional) • High performance true IF/stage DSP on main band, AF stage DSP on sub-band • Wide band receive • Digital filtering • Dual receive • Satellite ready, with transverter frequency display • Cross band repeat • Built-in auto tuner HF through 6M • Built-in TNC • Built-in RS-232 for computer control • Built-in TCXO (.5PPM) • CTCSS/DCS enc/dec • Electronic memory keyer • Backlit front key panel • 5+1 antenna ports – 2 for HF and 6M, 1 each for 2M, 70cm, 1.2GHz and HF receive **$1759.99**

TS-B2000 HF/VHF/UHF All Mode Transceiver Same as the TS-2000 with high-tech "silver box" look. Includes PC control software **$1399.99**

TS-2000X HF/VHF/UHF All Mode PC Controlled Transceiver TS-2000 w/1.2GHz **$2399.99**

Available Accessories

ARCP2000 PC/radio control software (included with B2000 model), **DRU3A** Digital recording unit, **KPS15** 23A switching power supply, **MB430** Mobile mounting bracket, **MC43S** 8-pin hand mic, **MC57DM** Lit TTP mic, **MC60A** 8-pin amp desk mic, **MC80** 8-pin electret desk mic, **MC90** 2-head DSP desk mic, **PG2Y** 13' DC cable, **PG2Z** DC cable, **PS53** Heavy-duty power supply, **RC2000** Remote face plate mobile kit, **SP23** Speaker, **VS3** Voice synthesizer

MFJ ENTERPRISES, INC.

LOW POWER SINGLE BAND SSB TRANSCEIVERS

No microprocessor – turn on and tune in. • 20W PEP (Less on VHF models) – plus Constant Current™ syllabic speech processing for an added 4–6dB advantage to cut through noise, fading, and QRM • Handheld dynamic mic that complements speech processing • Low drain – 3A from 12V supply or battery • Low noise preamp and active double balanced mixer front end • Sharp 2.3kHz SSB crystal ladder filter reduces passband noise, fights QRM, and improves intelligibility • TVI protection (built-in 7 element lowpass filter) • Real S-meter • Reduction drive analog VFO allows scanning the band for signals quickly, then zeros in smoothly • Amplifier jack • 2.5h" x 6.5"w x 6"d

9420X 20M SSB (14.150–14.350MHz)... **$229.99**

9440X 40M SSB (7.150–7.3MHz)..... **$229.99**

9475X 75M SSB (3.75–4.00MHz)..... **$229.99**

Available Accessories:

4110 Portable AC power supply, **4114** Rechargable power pack, **415B** CW adapter (9420X and 9440X only), **971** 200W HF tuner

QRP SINGLE BAND CW TRANSCEIVERS

Easy operation! Sets up in seconds. • 5W CW • Great sensitivity – hot superhet receiver with super-quiet FET post amp stage in the IF filter • Excellent selectivity – tight CW bandwidth crystal ladder filter fights unwanted QRM and noise • Smooth and stable VFO (wide-spaced reduction drive VFO capacitor) • True RIT • Recovery AGC • Built-in 3" speaker • Low power drain – 50mA on receive and 1.2A peak on transmit • Semi-QSK – set adjustable hold transmit/receive switching to suit your normal sending speed or set for full QSK during contests • Compact • Four models below

9015 5W, 15M (21.000–21.200MHz)..... **$169.99**

9020 5W, 20M (14.000–14.075MHz)..... **$169.99**

9030 5W, 30M (10.100–10.150MHz)..... **$169.99**

9040 5W, 40M (7.000–7.150MHz)..... **$169.99**

Available Accessories:

1772 Portable 20M dipole, **1773** Portable 30M dipole, **1774** Portable 40M dipole, **27** Handle for CW station, **4110** portable AC power supply, **4114** Rechargable power pack, **412** Plug-in Curtis keyer, **726** Plug-in audio filter, **971** 200W portable antenna tuner/meter

8708 Micro ATV Transmitter Transmits a high quality amateur television audio and video signal on 433.97MHz (cable channel 58, 59 or 60). Plug in an antenna and a video source (video camera, camcorder, or VCR). With a TV set, or down converter, tuned to the appropriate channel, you'll have a complete low power ATV video station. Puts out 50 to 100mW signal, capable of transmitting up to 1.8 miles with a 3-element beam. By using a suitable UHF amplifier, enjoy ATV communications over an extended range with other ATV ham operators. Requires 9V battery or other source..... **$149.99**

FREE ITEMS included with some radios. See Price Guide for details.

SGC

HF SSB TRANSCEIVERS

SG-2000 (04-01) HF SSB Global Radio Telephone With full frequency coverage for voice and data. Talk anywhere in the world on the HF Ham bands, receive and send time sensitive documents, decode UPI transmissions, get latest weather reports or listen to shortwave broadcasts. Also, great for marine use. It can be fully computer controlled via a standard RS-232 connector. The front panel can also be used as a remote head terminal (up to 8 remote heads can be utilized). • 1.8–30MHz tx, 500kHz–30MHz general rx • 150W • Modes: A3A, A3H, A3J and CW in LSB/USB, true AM in receive mode and data • 100 field-programmable and 644 factory-programmed ITU & data channels • 100 programmable scan channels • 13.6 VDC @ 16A • 4.75"h x 10"w x 15"d, 12 lbs..... **$1599.99**

Available Accessories:

0411 Standard remote head/bracket/20' cable, **0412** Remote kit/swivel bracket/cable, **0413** Remote kit/5-way mount/cable, **0415** Remote mobile head (memory channels only), **0422** Powertalk remote head, **5182** Fan kit for continuous transmit, **5232** Carbon telephone handset, **5234** RS232 interface, **5251** CA-1 HV feed wire, **5253** CA-230 antenna coupler cable, **5254** CA-2000 remote head cable, **5261** PSC/12-1 12' power supply cable/1 plug, **5262** PSC/12-2 12' power supply cable/2 plugs, **5304** PS-30 30/40A peak unregulated power supply, **5305** PS-50 50/70A peak unregulated power supply

SGC

PowerTalk™ SG-2000 (04-10) **HF SSB Transceiver** With the PowerTalk™ SG-2000, you'll intercept more weak HF signals, increase signal clarity and eliminate unwanted noise. You'll hear SSB signals clearer and easier than ever before. Combines SGC's exclusive ADSP™ (Automatic Digital Signal Processing) and SNS™ (Signal Noise Subtraction). A DSP command center with a high performance spinner knob and bright LED indicators. Includes all of the outstanding features of the SG-2000: 644 Ham and ITU discrete frequencies • 150W • Programmable memory • Large LCD **$1849.99**

Available Accessories:
0412 Remote kit/swivel bracket/cable, **0413** Remote kit/5-way mount/cable, **0422** Powertalk remote head, **5232** Carbon telephone handset, **5234** RS232 interface, **5251** CA-1 HV feed wire, **5253** CA-230 antenna coupler cable, **5254** CA-2000 remote head cable, **5261** PSC/12-1 12' power supply cable/1 plug, **5262** PSC/12-2 12' power supply cable/2 plugs, **5304** PS-30 30/40A peak unregulated power supply, **5305** PS-50 50/70A peak unregulated power supply

SG-2020 (05-01) **Compact HF SSB/CW Transceiver** Small, but fully microprocessor-controlled and loaded with "Big Rig" features. Take it and use it anywhere – fixed, mobile, portable, aviation or boating. Operating from 12V DC, it has the lowest current consumption on the market. • 1.8–29.7 MHz amateur bands • 400kHz–29.7MHz general coverage receive • SSB/CW modes • 0–20W PEP output, ad-justs down to 1W for QRP • 40 memories • Backlit LCD display • Built-in IAMBIC "B" mode electronic keyer • Noise blanker • RF speech processor and clipping • SWR metering and voltage indicator • SPLIT, RIT, XIT • AF bandpass tuning • Handheld, dynamic microphone • Requires 13.8V DC @ 3A • 2.75"h x 6"w x 7.5"d, 4.5 lbs. **$675.99**

SG-2020 (05-02) Same radio as above with 20 memories and the addition of ADSP™. The added PowerClear™ DSP software provides superior tone rejection (better than 57dB) and dynamic noise rejection (better than 18dB) **$795.99**

Available Accessories:
5422 SG-239 200W SmartTuner

FREE ITEMS included with some radios. See Price Guide for details.

YAESU

*Yaesu prices beyond 9/30/02 were unknown at press date.

HF TRANSCEIVERS

FT-100D **Ultra-Compact HF/VHF/UHF All Mode Transceiver** Widely acclaimed for outstanding performance and flexibility. Wide frequency coverage and versatile – a great compact mobile, vacation or expedition radio. Covers 160–6M, 144-148MHz, 430–450MHz • General receive: 100kHz–30MHz, 30–970MHz (cell blocked) • 100W output on HF/6M; 50W on 2M; 20W on 430MHz • DSP system enhances signal-to-noise ratio via bandpass, noise reduction and automatic notch filters • Dual VFOs • Electronic keyer built-in • 200 memories and Quick Memory Bank • SmartSearch™ auto memory channel loading • Improved high-quality speaker • 500Hz, 8-pole crystal filter (CW) • High stability reference oscillator • CTCSS decode • Bright LCD with multi-function display • VOX • Requires 13.8V DC @ 22A • 6.3"w x 2.1"h x 8"d **$839.99**

Available Accessories:
ATAS100 HF/6M/2M/430MHz motorized antenna, **ATAS120** HF/6/2/430 antenna, **ATBK100** ATAS100 base kit/use with mount, **CT39** Packet cable, **CT58** Band data cable, **CT62** CAT interface cable, **CT69** 6-pin mod/8-pin mic jack, **FC20** Automatic antenna tuner, **FP1023** 23A switching power supply with fan, **FP1030A** 25A power supply with meters, **LL5** Phone patch unit, **MLS100** Mobile speaker, **MMB62** Remote control panel bracket, **MMB67** Quick release bracket, **SP6** External speaker, **T9021925** Extra DC cord, **XF117A** 6kHz AM filter, **XF117CN** 300Hz CW filter, **YH77STA** Stereo headphone, **YSK100** Separation kit

FT-840 **Compact High Performance HF Transceiver** Blending high performance digital synthesis techniques, convenience and affordability from previously successful radios, the FT-840 adds a choice of two optional remote automatic antenna tuners and a wealth of convenient functions. • Direct Digital Synthesis • Covers 160–10M with 50 kHz–30MHz general coverage receiver • 100W output (25W AM) • 100 memory channels • Low noise FET front end • Two direct digital synthesizers (DDSS) and magnetic rotary encoder for smooth tuning • Twin band-stacking VFOs • IF shift • Reverse CW • FM repeater with auto 10M repeater offset • Selectable CTCSS • Requires 13.8V DC @ 20A • 9.2"w x 3.6"h x 9.5"d, 9.9 lbs **$599.99**

Available Accessories:
FC10 Extra coax fed auto tuner, **FC800** Extra long wire auto tuner, **FIF232C** RS-232 interface, **FM747** FM unit, **FP1023** 23A switching power supply with fan, **FP1030A** 25A power supply with meters, **MD100A8X** Desk mic with tone control, **MD200A8X** Deluxe high fidelity desk mic, **MLS100** Mobile speaker, **MMB20** Mobile mount, **SP6** External spker, **TCXO4** TCXO unit, **T9018320** DC cord, **YF112A** 6kHz AM filter, **YF112C** 500Hz CW filter, **YH77STA** Stereo headphone

FT-817 **HF/VHF/UHF Backpack Transceiver** Self-contained and low power for portability. • 160–10M, 50MHz, 144MHz, 430-450MHz, plus Alaska Emergency Channel (5167.5kHz) tx • 100kHz-56 MHz, 76-154 MHz, 420-470MHz, plus AM aircraft rx • 200 alphanumeric memories (home channels and band-limit) • SmartSearch™ memory loading • 5W SSB/CW/FM (13.8V external DC), 1.5W AM, 2.5W SSB/CW/FM (9.6V NiCad pack or 8 AA's, includes internal alkaline case), 0.7W AM, up to 5W SSB/CW/FM power programmable via menu (NiCad or AA's) • USB, LSB, CW, AM, FM, W-FM, AFSK, packet • RTTY, PSK31-U, PSK31-L, user-defined USB/LSB • 2-color, multi-function LCD • Meters ALC, power output, SWR, modulation • RF gain/squelch control • Noise blanker • Attenuator • Dual VFOs, split capability, IF shift, and RIT • Electronic keyer • VOX • Auto repeater shift • CTCSS/DCS • Front/rear antenna jacks • 3 accessory jacks • PC control capability • 5.31"w x 1.5"h x 6.5"d, 2.6 lbs..... **$669.99**

Available Accessories:
W4ROTT1 One-touch tune, **CSC83** Soft case, **CT39** Packet cable, **CT62** Cat interface cable, **CT69** 6-pin mod – 8-pin mic jack, **EDC6** DC cord, **FNB72** 9.6V 1000ma NiCad, **MH36E8J** TTP mic, **NC72B** Wall charger, **TCXO9** TCXO unit, **YF122C** 500Hz Collins CW filter, **YF122S** 2.3kHz Collins SSB filter

FT-897 **HF/VHF/UHF Multi-Mode Portable/Base** Self-contained transceiver able to operate without external power supply! Using the optional 13.2V @ 4500mAh NiMH battery pack, operates at 20W on all bands except 430MHz (10W). Two batteries may be installed simultaneously giving up to 8 hours of use. • 100W (HF/50MHz), 50W(144MHz) and 20W (430MHz) on external 13.8V DC • Adjustable down to 5W • SSB/CW/AM/FM and digital modes • Large-diameter main tuning dial, similar to a base station • Built-in DSP • Selectable tuning steps (2kHz/4kHz) • Easy receiver offset tuning (clarifier) • Scrolling front panel, multi-function keys with instant "hoy key" switching • RS-232 port • Built-in keyer • Rugged, aluminum, die-cast chassis • Thermostati-cally-controlled twin cooling fans • Optional HF/50 MHz automatic antenna tuner (external mount) • 7.9"w x 3.14"h x 10.3"d, 8.6 lbs **$1049.99**

Available Accessories:
ATAS120 HF/6/2/430 antenna, **ATBK100** ATAS100 base kit; use w/mt, **CD24** 4-hour charge adapter, **CT39** Packet cable, **CT62** Cat interface cable, **FC30** Antenna tuner, **FNB78** 4.5ah NiMH, **FP30** Internal power supply, **MD100A8X** Desk mic with tone control, **MD200A8X** Dlx high fidelity desk mic, **MH36E8J** TTP mic, **MLS100** Mobile speaker, **MMB80** Mting bkt, **PA26B** Charger for CD24, **TCXO9** TCXO unit, **YF122C** 500Hz Collins CW filter, **YF122S** 2.3kHz Collins SSB filter, **YH77STA** Stereo headphones

AES
Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

YAESU

*Yaesu prices beyond 9/30/02 were unknown at press date.

FT-847 HF/VHF/UHF All Mode Transceiver All mode operation on HF, 50MHz, 144MHz, and 430MHz with full satellite capability • Covers 160–6M, 2M, 70cm and 5.1675MHz (Alaska emergency channel) • General receive: 100kHz–30MHz, 36–76MHz, 108–74MHz, 420–512 MHz • 100W output on HF/6M (25W AM); 50W (12.5W AM) on 2M/430 MHz • High resolution 0.1Hz tuning steps • Shuttle-Jog™ tuning ring • Direct frequency keypad entry • Low noise VHF/UHF preamps built-in • Advanced DSP system enhances signal-to-noise ratio via sophisticated bandpass, noise reduction and automatic notch filters • Cross band full duplex operation • Normal/reverse tracking and dedicated satellite memories • 1200/9600 bps packet ready • CW sidetone/pitch control • Built-in CTCSS/DCS • Four antenna jacks on rear panel • Requires 13.8V DC @ 22A • 10.2"w x 3.4"w x 10.6"d, 14.4 lbs **$1249.99**

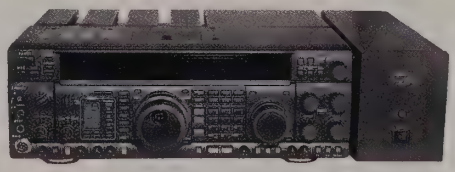
Available Accessories:
ATAS100 HF/6M/2M/430MHz motorized antenna, **ATAS120** HF/6/2/430 antenna, **ATBK100** ATAS100 base kit, **CT39** Packet cable, **CT61** Amp interface cable, **FC20** Automatic antenna tuner, **FP1023** 23A switching power supply with fan, **FP1030A** 25A power supply with meters, **FVS1A** Voice synthesizer, **MD100A8X** Desk mic with tone control, **MD200A8X** Deluxe high fidelity desk mic, **MH36D8** DTMF mobile microphone, **MMB66** Mobile mounting bracket, **SP8** External speaker with filters, **T9018320** DC cord, **YF115C** 500Hz CW/Collins Mechanical filter, **YF115S02** 2.5kHz SSB/Collins Mechanical filter, **YH77STA** Stereo headphone

FT-920 HF + 50MHz All Mode Transceiver Direct digital frequency synthesis • Covers 160–6M with 100kHz–30MHz, 48–56MHz general receive • Power output adjustable up to 100W (25W AM) • Multi-function tuning dials and keyboard frequency entry • 127 memories with alphanumeric labels • Multiple scanning functions • Dual watch system • Quick memory bank (QMB) instant memory system • Built-in high-speed antenna tuner, digital voice recorder and electronic memory keyer • DSP speech processor, auto notch filter, noise reduction and VOX control • CW spot and pitch controls IF shift • QSK and built-in electronic keyer • Noise blanker • Dual antenna jack plus receive-only antenna jack • ShuttleJog™ control • Independent RX preamps for high and low bands • OmniGlow™ LCD with twin frequency displays • RS-232 computer control interface • Requires 13.8VDC @ 22A • 15.2"w x 5.3"h x 12.5"d, 24 lbs **$1139.99**

Available Accessories:
FM1 FM unit, **FP1023** 23A switching power supply with fan, **FP1030A** 25A power supply with meters, **LL7** Phone patch unit for SP8, **MD100A8X** Desk mic with tone control, **MD200A8X** Deluxe high fidelity desk mic, **SP8** External speaker with filters, **TCXO7** TCXO unit, **T9018320** DC cord, **YF116A** 6kHz AM filter, **YF116C** 500Hz CW filter, **YH77STA** Stereo headphone

FT-1000D 200W HF All-Mode Transceiver Judged "best overall" by top DX'ers worldwide, the FT-1000D delivers optimum receiver performance and real "muscle" on transmit. With a front panel featuring two flywheel weighted tuning knobs and two large displays, it's a perfect blend of ergonomics and electronics. Hear signals you've never heard before. • Direct Digital Synthesis (DDS) • Covers 160–10 meters with 100kHz–30MHz general coverage receive • 100 memory channels store frequency, mode, and filter selection • Up to 200W power output (AM 50W) • True cross-band dual receive (dual receiver front ends and IFs), two large tuning knobs • Front panel receive antenna switch for beverage or loop antenna • Built-in antenna tuner with 32 memories • CW spot and two CW key jacks for maximum convenience • CAT system for computer control • Built-in 110/220VAC power supply • 5.9"h x 16.4"w x 14.8"d, 31lbs **$4199.99**

Available Accessories:
DVS2 Voice recording module, **FIF232C** RS-232 interface, **LL5** Phone patch unit, **MD100A8X** Desk mic with tone control, **MD200A8X** Deluxe high fidelity desk mic, **SP5** External speaker, **XF455MC** 600Hz CW filter, **YF110CN** 250Hz CW filter/XFF, **YH77STA** Stereo headphone



FT-1000MP MK V 200W HF All Mode Transceiver The crowning achievement in Yaesu's HF transceiver design history. A unique blend of analog and digital technology, the MARK-V is based on the concept of rigorous filtering in all stages of the receiver and transceiver. Introduces all-new features to the FT-1000 series. • Inter-locked Digital Bandwidth Tracking, which matches the receiver passbands of the 8.2MHz IF, 455kHz IF and DSP systems • Variable RF Front-end Filter, providing a high-Q "Preselector" system protecting the receiver's front end • 200W MOSFET final amplifier, conservatively rated with revolutionary heat sink design • 75W optional Class-A PA operation, providing extraordinary SSB signal purity • Integrated ShuttleJog™ control, combines IBDT and VRF access buttons with the Shuttle-Jog™ frequency control • High-speed automatic antenna tuner for 200W operation • Separate switching power supply, provides 30V for MOSFET PA transistors, and 13.8V for other circuitry • 16.4"w x 5.4"h x 13.9"d, 31 lbs. (xcvr), 4.2"w x 5.4"h x 13.6"d, 13 lbs. (power supply)..... **$2599.99**

Available Accessories:
DVS2 Voice recording module, **FH1** Remote control keypad, **FTV1000** 200W 6M transverter, **LL7** Phone patch unit for SP8, **MD100A8X** Desk mic with tome control, **MD200A8X** Deluxe high fidelity desk mic, **MH31B8** Extra hand mic, **SP8** External speaker with filters, **TCXO6** Deluxe TCXO unit, **YF110CN** 250Hz CW filter/XFF, **YF110SN** 2kHz SSB filter/XFD, **YF114CN** 250Hz CW second IF main receive, **YF114SN** 2kHz SSB second IF main receive, **YF115C** 500Hz CW/Collins Mechanical filter, **YH77STA** Stereo headphone

MK V FIELD Leading-Edge Technology, 100W Self-Contained Design 160-10M tx (amateur only), 100kHz-30MHz rx • All modes • Adjustable up to 100W (25W AM) • Selectable Class-A 25W SSB output for better intermodulation products • Self-contained 117/200 VAC power supply, 13.8VDC optional • Built-in TCXO • Dual receive with independent AGC systems • Integrated digital bandwidth tracking • Enhanced DSP • Digital SSB microphone equalizer and RF speech processor • Selectable digital modulation/demodulation • Digital auto-notch • Variable RF front-end filter • Selectable SSB pattern-contour filters • Three RF preamplifier modes +IPO (Direct Mixer Feed) • Outstanding IF filter chain includes 10-pole Collins mechanical filter • Built-in, high-speed antenna tuner • Electronic memory keyer • Many outstanding CW features • Enhanced ergonomics: multi-function shuttle jog dial • 16"w x 5.3"h x 13.7"d, 33 lbs..... **$2199.99**

Available Accessories:
DVS2 Voice recording module, **FH1** Remote control keypad, **FP29** Power supply for FTV1000, **FTV1000** 200W 6M transverter, **LL7** Phone patch unit for SP8, **MD100A8X** Desk mic with tome control, **MD200A8X** Deluxe high fidelity desk mic, **MH31B8** Extra hand mic, **SP8** External speaker with filters, **TCXO6** Deluxe TCXO unit, **YF110CN** 250Hz CW filter/XFF, **YF110SN** 2kHz SSB filter/XFD, **YF114CN** 250Hz CW second IF main receive, **YF114SN** 2kHz SSB second IF main receive, **YF115C** 500Hz CW/Collins Mechanical filter, **YH77STA** Stereo headphone

SINGLE BAND MOBILE RADIOS

The AR-147+, 247 and 447 include features expected in a modern mobile including AM air receive (147+ only), direct frequency entry, lots of memory channels and more. Both CTCSS and DCS to ensure compatibility with all repeater systems. • MARS/CAP capable • 80 multi-function memories plus call • Auto repeater offset • 9 DTMF autodialer memories + redialer • Programmable band, memory scan and frequency/channel display • DTMF paging • Dual frequency watch • PC programmable

AR-147+ 2M Mobile Transmit: 144–148MHz • Receive: 118–171MHz • Three power settings (60, 10, 5W) • 1.5" x 5.5" x 6.25", 2.7lbs **$149.99**

AR-247 220MHz Mobile Transmit: 222–225MHz • Receive: 216–229MHz • Three power settings (30, 10, 5W) • 1.5" x 5.5" x 6.25", 2.7lbs **$209.99**

AR-447 70 Centimeter Mobile Transmit: 430–450MHz • Receive: 420–460MHz • 3 power settings (35, 10, 5W) • 1.5" x 5.5" x 6.25", 2.7lbs. **$209.99**

Available Accessories:
MTGBKT Mobile bracket, **PROG47** PC programming software and cable, **PWRCORD** DC cable

HF RADIOS

Manufacturer	ALINCO*	ALINCO	ICOM*	ICOM	ICOM	ICOM	ICOM	KENWOOD	KENWOOD	KENWOOD	KENWOOD	KENWOOD	MFJ	MFJ
Model	DX-70TH	DX-77T	IC-706MkIIG	IC-718	IC-746PRO	IC-756PROII	IC-775DSP	TS-2000, TS-B2000 TS-2000X	TS-50S	TS-570D(G)	TS-570S(G)	TS-870S	9015	9020
Bands	HF, 6M	HF	HF, 6M, 2M, 70CM	HF	HF, 6M, 2M	HF, 6M	HF	HF, 6M, 2M 70CM, 1.2gHz	HF	HF	HF, 6M	HF	15M	20M
Rx Range (MHz)	.15-30, 50-54	.5-30	.03-200, 400-470	.03-30	.03-200	.03-60	.01-30	.03-60, 142-152 420-450 1240-1300*	.5-30	.5-30	.5-30, 6M	.1-30	21-21.2	14-14.075
Power (SSB/CW/FM)	100W HF/6M	10-100W	5-100 HF/6M 5-50 2M 2-20 70CM	5-100W(7)	5-100 HF/6M/2M	5-100	5-200W	100W HF/6/2M 50W 70CM 10W 1.2gHz*	100W	5-100W	5-100W HF/6M	100W	5W CW	5W CW
Power (AM)	40W HF/6M	4-40W	2-40W HF/6M 2-20W 2M 2-8W 70CM	2-40W	5-40W HF/6M/2M	5-40	5-50W	25W HF/6/2M 12.5W 70CM 2.5W 1.2gHz*	5-40W	5-25W	5-25W	25W	No	No
DSP	No	No	Yes	Optional	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No
Tuner	No	No	Optional	Optional	Internal	Internal	Internal	Yes	No	Yes	Yes	Yes	No	No
Keyer	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No
Speech Readout	No	No	Optional	Optional	Optional	Optional	Optional	Yes	No	Optional	Optional	Optional	No	No
VOX	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No
Power Requirements	12VDC 20A	12VDC 20A	12VDC 20A	12VDC 20A	12VDC 20A	12VDC 23A	125VAC	12VDC 20.5A	12VDC 20.5A	12VDC 20.5A	12VDC 20.5A	12VDC 20.5A	12VDC 12A	12VDC 12A
Antenna ports	2(1)	1	2(3)	1	3(4)	2	2	5	1	2	2	2	1	1
Computer Port	No	Optional	Optional	Optional	Optional	Optional	Optional	Yes	Optional	RS-232	RS-232	RS-232	No	No
Height (in.)	2.3	3.7	2.3	3.75	4.7	4.3	5.9	3.75	2.4	3.8	3.8	4.8	2.5	2.5
Width (in.)	7	9.8	6.6	9.44	11.3	18.3	16.7	10.625	7.1	10.6	10.6	13	6.5	6.5
Depth (in.)	9	9	7.9	9.40	12.5	11.2	15.4	12.5	9.2	10.7	10.7	13.1	6	6
Weight (lbs.)	6	8.4	5.5	8.4	19.5	21	36.8	17.19	6.4	15	15	25.4	2	2

Manufacturer	MFJ	MFJ	MFJ	MFJ	MFJ	SGC*	SGC*	SGC	YAESU*	YAESU	YAESU	YAESU	YAESU	YAESU	YAESU	YAESU	YAESU
Model	9030	9040	9420X	9440X	9475X	04-01 SG-2000	04-10 POWERTALK	05-01/05-02 SG-2020	FT-100D	FT-817	FT-840	FT-847	FT-897	FT-920	FT-1000D	FT-1000MPMKV	MK V FIELD
Bands	30M	40M	20M	40M	75M	HF	HF	HF	HF, 6M 2M, 70CM	HF, 6M 2M, 70CM	HF	HF, 6M 2M, 70CM	HF, 6M 2M, 70CM	HF, 6M	HF	HF	HF
Rx Range (MHz)	10.1-10.15	7-7.15	14.15-14.35	7.15-7.3	3.75-4	.5-30	.5-30	1.8-29.7	.1-961(6)	.1-56 76-154 420-470	.1-30	.1-30, 36-76 108-174 420-512	.1-56, 76-108 118-164 420-470	.1-30 48-56	.1-30	.1-30	.1-30
Power (SSB/CW/FM)	5W CW	5W CW	12W SSB	12W SSB	12W SSB	150W SSB/CW	150W SSB/CW	0-20W SSB/CW	100W HF/6M 50W 2M 20W 70CM	5W	100W(2)	5-100W HF/6M 50W 2M/70CM	100W HF/6M(8) 50W 2M(8) 20W 70CM(8)	10-100W(2)	20-200W	200W	100W
Power (AM)	No	No	No	No	No	40W	40W	No	25W HF/6M 12.5W 2M 5W 70CM	1.5W	25W	25W HF/6M 12.5W 2M 12.5W 70CM	25W HF/6M(9) 12.5W 2M(9) 5W 70CM(9)	2.5-25W	50W	50W	25W
DSP	No	No	No	No	No	No	Yes	No	Yes	No	No	Yes	Yes	Yes	No	Yes	Yes
Tuner	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes
Keyer	No	No	No	No	No	No	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Speech Readout	No	No	No	No	No	No	No	No	No	No	No	Optional	No	No	No	No	No
VOX	No	No	No	No	No	No	No	No	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes
Power Requirements	12VDC 1.2A	12VDC 1.2A	12VDC 1.2A	12VDC 1.2A	12VDC 1.2A	12VDC 30A	12VDC 30A	12VDC 5A	13.8VDC 22A	12VDC 2A	13.8VDC 22A	13.8VDC 22A	13.8VDC	13.8VDC 22A	125VAC	FP29 30V (supplied)	125VAC 13.8VDC
Antenna ports	1	1	1	1	1	1	1	1	2(3)	2	1	4(5)	2	2	1	2	2
Computer Port	No	No	No	No	No	Optional	Optional	Optional	Optional	Yes	Optional	RS-232	RS-232	Optional	Optional	Yes	Yes
Height (in.)	2.5	2.5	2.5	2.5	2.5	4.6	4.6	2.75	2.2	1.5	3.7	3.4	3.14	5.3	5.9	5.4	5.3
Width (in.)	6.5	6.5	6.5	6.5	6.5	10	10	6	6.3	5.3	9.4	10.2	7.9	16.1	16.4	16.4	16
Depth (in.)	6	6	6	6	6	15	15	7.25	8	6.5	9.6	10.6	10.3	12.4	14.8	13.9	13.7
Weight (lbs.)	2	2	2	2	2	12	12	2.5	6.6	2.6	12	14.4	8.6	30.8	51	31	33

*Remotable control head
*Optional module required for TS-2000 and B versions
(1) One port for HF; one port for 6M
(2) Optional board required for FM
(3) HF/6M one port, 2M/440MHz second port
(4) Two ports for HF, one dedicated for 2M
(5) Port per band. HF/6M can be combined
(6) Cell blocked
(7) No FM
(8) On internal batteries: 20W (10W on 70cm)
(9) On internal batteries: 5W (2.5W on 70cm)

FREE ITEMS included with some radios.
See Price Guide for details.

AES
Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

ULTRA-RUGGED, SUBMERSIBLE TRI-BAND MAGNESIUM HANDIE

Own the brightest star in the Ham Radio Galaxy! The exciting new YAESU VX-7R sets new standards in ruggedness, water resistance, and versatility, and its memory capacity is unparalleled. Own the VX-7R, and you'll own the best.

- TRUE DUAL RECEIVE (V+V/U+U/V+U/HAM+GEN)
- WIDE-RANGE RECEIVER
- MAGNESIUM CASE
- SUBMERSIBLE (3 feet for 30 minutes)
- OVER 500 MEMORY CHANNELS
- MIXED TONE (CTCSS/DCS) CAPABILITY
- INTERNET KEY FOR ACCESS TO WIRES Wide-Coverage Internet Repeater Enhancement System
- SHORTWAVE BROADCAST MEMORY BANK
- WEATHER BROADCAST MEMORY BANK WITH "SEVERE WEATHER" ALERT
- MARINE BAND MEMORY BANK
- MULTI-COLOR STROBE LED
- LOW-POWER 222 MHz TX (U.S. version)
- RUBBER CASE PROTECTOR

VX-7R

50/144/430 MHz 5W FM Transceiver

Actual Size

For the latest Yaesu news, visit us on the Internet: http://www.vxstdusa.com

Specifications subject to change without notice. Some accessories and/or options may be standard in certain areas. Frequency coverage may differ in some countries. Check with your local Yaesu Dealer for specific details.

YAESU
Choice of the World's top DXers

Vertex Standard
US Headquarters
10900 Walker Street
Cypress, CA 90630 (714)827-7600

Reach the HF Summit!

The New MARK-V Field

The world's top DX and Contest operators have lauded the leading-edge performance of the MARK-V FT-1000MP. Now you can experience the Mark-V for yourself in the exciting new MARK-V Field, a 100-Watt all-in one HF transceiver with built-in power supply! With all the great features of the MARK-V: the Integrated Digital Bandwidth Tracking, Variable RF Preselector, Class-A SSB transmission, and bullet-proof front end. . .you'll have all the tools to come out on top in the next pile-up.

The MARK-V Field. From the Yaesu DX Professionals.

HF 100W ALL MODE TRANSCEIVER

MARK-V FT-1000MP *Field* NEW

YAESU
Choice of the World's top DX'ers℠

Vertex Standard
US Headquarters
10900 Walker Street
Cypress, CA 90630 (714)827-7600

For the latest Yaesu news, visit us on the Internet:
http://www.vxstdusa.com

Specifications subject to change without notice. Some accessories and/or options may be standard in certain areas. Frequency coverage may differ in some countries. Check with your local Yaesu Dealer for specific details.

HF/VHF/UHF Portable Operation Just Got a Lot More Powerful! Meet the YAESU FT-897!

Turn your next weekend getaway into an HF DX-pedition, and leave the power supply at home.

Portable/Base Station

FT-897

All-Mode 1.8-430 MHz Transceiver

Shown with optional FC-30 Automatic Antenna tuner and FP-30 AC Power Supply.

- HF/50 MHz 100 W, 144 MHz 50 W, 430 MHz 20 W (External 13.8V DC) 20 W (430 MHz 10W) Self-contained w/optional FNB-78 Battery Pack
- SSB/CW/AM/FM/Digital Modes
- Optional FP-30 Internal Power Supply and FC-30 Antenna Tuner
- Built in DSP

For the latest Yaesu news, visit us on the Internet: http://www.vxstdusa.com

Specifications subject to change without notice. Some accessories and/or options may be standard in certain areas. Frequency coverage may differ in some countries. Check with your local Yaesu Dealer for specific details.

YAESU
Choice of the World's top DX'ers™

Vertex Standard
US Headquarters
10900 Walker Street
Cypress, CA 90630 (714)827-7600

MOBILE DX MASTER

Since its introduction over a year ago, Yaesu's FT-100 HF/VHF/UHF Transceiver has been widely acclaimed for its outstanding performance and flexibility. Now the FT-100D builds on this success story, adding the convenience of factory-installed modules for today's Ham on the go!

FT-100D HIGHLIGHTS

The FT-100D is a high-performance, ultra-compact transceiver operating on the 160-10 meter HF bands, plus the 50, 144, and 430 MHz VHF/UHF bands. Known for its outstanding receiver performance, the FT-100D's easy-to-access DSP system is the cornerstone of the outstanding receiver capability. Providing Noise Reduction, Auto-Notch, and Narrow-Bandwidth Filter selection, the DSP system also includes a Microphone Equalizer for the transmit side.

The new and enlarged speaker of the FT-100D (ϕ66 mm) provides spectacularly clean audio output, to help you dig out those weak signals.

Whether at home or away, the fantastic new FT-100D is The Choice of the World's Top DX'ers. Step up to the FT-100D, and enjoy the thrill of the sunspot peak in style!

MICRO MOBILE

FT-100D

Ultra-Compact HF/VHF/UHF Transceiver

YAESU

Vertex Standard
US Headquarters
10900 Walker Street
Cypress, CA 90630 (714)827-7600

For the latest Yaesu news, visit us on the Internet:
http://www.vxstdusa.com

Specifications subject to change without notice. Some accessories and/or options may be standard in certain areas. Frequency coverage may differ in some countries. Check with your local Yaesu Dealer for specific details.

ALINCO

AMATEUR RADIO

SINGLE BAND MOBILES

DR-135TP **2M Mobile/Base Voice/Data Transceiver** 144–148MHz tx; 118–135.995MHz (AM aircraft), 136–173.995MHz rx • 50/10/5W • Wide or narrow FM • 1200/9600bps TNC • 100 alphanumeric memories, 1 call • 7-character, 3-mode display • CTCSS/DCS, 4 Euro bursts • Backlit DTMF mic • 10 autodialer memories • Multi scan modes • Front panel GPS input • Rear panel PC connection • Ignition key on/off • Theft alarm • 13.8V DC @ 11A • 5.58"w x 1.57"h x 6.83"d, 2.3 lbs .. **$269.99**

DR-135T Same, but no TNC **$169.99**

DR-235T Same, except covers 222–224.995MHz tx, 216–279.995MHz rx • 25W/10/5W ... **$249.99**

DR-435T Same as DR-135T, but covers 430–450 MHz tx, 400–470MHz rx • 35W **$259.99**

Available Accessories:
EDC37 DC cable, **EDC43** Cigarette lighter cable, **EJ40U** Digital board, **EJ41U** 1200/9600 TNC (T-series only), **HK130** Hardware kit, **MB130** Mounting bracket, **PC15B** DC cable

DR-M06TH **6M FM Transceiver** Covers 50-54MHz • FM, selectable 20/1W output • 100 memories plus CALL channel • 50 tone CTCSS encoder • Programmable repeater offset for each memory channel • Time-out-timer • 13.8V DC @ 3A • 5.5"w x 1.5"h x 4.5"d, 1.6 lbs • Includes DTMF hand mic **$259.99**

Available Accessories:
HK130 Hardware kit, **MB130** Mntg brkt, **PC15B** DC cable

DUAL BAND MOBILES

DR-605TQ **FM Dualbander** 144–147.995MHz, 430-449.995MHz tx; 136–173.995MHz, 420–470 MHz rx • 50/10/5W (VHF), 35/10/5W (UHF) • 50 memories, 1 call per band • Cross band repeat and full duplex • Dual VHF/UHF only displays • Multi scan functions • CTCSS encode, 3 European tone bursts • Twin volume controls • Packet compatible • Cable cloning function • Internal antenna duplexer • MARS/CAP capability • 13.8V DC @ 11.5A • 5.58"w x 1.57"h x 6.8"d, 2.4lbs .. **$339.99**

Available Accessories:
EDS8 EMS14–DR605 adapter, **EMS14** Desk top mic, **HK130** Hardware kit, **MB130** Mounting brkt, **PC15B** DC cable

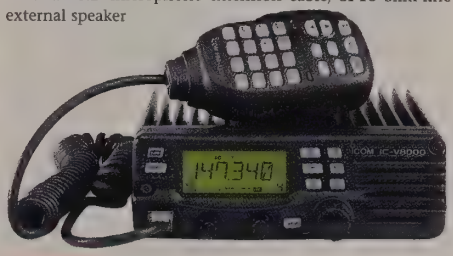
ICOM

SINGLE BAND MOBILE

IC-2100H **Rugged 2M Transceiver** Icom's newest and best performer against IMD. Straight-forward, easy operation • 50/10/5W • 144-148MHz transmit • 136-174MHz receive • One-touch button operation • 113 memories • Large, dual, user-programmable, alphanumeric, selectable green or amber backlit (4 levels) display • Backlit DTMF mic with 2 programmable keys • Heavy-duty, one-piece, die cast aluminum chassis • Adjustable attenuator • CTCSS tone encode/decode (up to 50 tones) • Tone scan • Auto repeater with busy lockout • Priority watch • Cloning capability • Mounting bracket included • Built to military spec for shock and vibration • Requires 13.8V DC @ 12A • 5.5"w x 1.6"h x 7.1"d, 2 lb, 10 oz..... Closeout **$149.99**

IC-2100H-25N Same 2M rig as above with a new TTP microphone **$179.99**

Available Accessories:
BC96 Microphone holder, **CSW2100** Windows software and cable, **CS2100** DOS cloning software, **EX1759** Infrared receiver, **HM90A** Wireless microphone, **MB28H** Mobile bracket, **OPC346** 9.8' DC cable, **OPC347** 23' DC power cable, **OPC440** 16.4' mic extension cable, **OPC441** Speaker extension cable, **OPC474** Radio-to-radio cloning cable, **OPC478** PC cable, **OPC589** 8-pin mic jack adapter cable, **OPC647** 8.2' microphone extension cable, **SP10** Slim-line external speaker



IC-V8000 **2M FM Transceiver** 75W output power – a first! • TX 144-148, RX 136-174MHz • 207 alphanumeric memory channels including 1 call channel, 6 scan edges • Weather alert and weather channel scan • DMS scan system • Each memory channel stores a 6 character name, tone frequency, skip info, and more • Priority watch • CTCSS/DTCS • Dynamic Memory Scan, customize/manage memory banks • DTMF encode and pager function capability • 10 DTMF memory channels with up to 24 digit DTMF codes • Versatile cloning from transceiver to transceiver or PC to transceiver • Front mounted speaker • One-piece, die-cast, rugged, aluminum chassis • Large cooling fan on the back and large cooling fins • Selectable green or amber display • Includes HM-133V remote control microphone • 5.9"w x2"h x 5.9"d, 2.22 lbs..... **$199.99**

Available Accessories:
CSV8000 Windows software, **OPC1132** 9.8' DC cable, **OPC347** 23' DC cable, **OPC440** 16.4' mic extension cable, **OPC441** Speaker extension cable, **OPC474** Radio-to-radio cloning cable, **OPC478** PC cable, **OPC589** 8-pin mic jack adapter cable, **OPC647** 8.2' mic extension cable, **SP10** Slim-line external speaker, **UT108** DTMF decoder unit, **V8000MMB** Mobile bracket

DUAL BAND MOBILES

IC-207H **2M/440MHz Super Compact Dual Bander** • 50W (VHF), 35W (UHF) • Transmit 144–148MHz and 440–450MHz • VHF wideband receive: 118-174MHz (includes Air Band) • 162 memory channels • Works one band at a time. Switch between bands with a touch of the large blue button • 9600 baud packet ready • CTCSS enc/decode • Auto repeater function • Multi-function backlit remote control microphone • Optional wireless microphone • 4 power settings per band • Big dials; big keys; big, bright display – easy-to-use on the GO! • Cloneable with optional software and cable • 5.5"w x 1.6"h x 8.4"d, 3.1 lbs **$299.99**

Available Accessories:
BC96 Microphone holder, **CSW207/2710** Windows software, **CS207** DOS programming software, **EX1759** Infrared receiver, **HM90A** Wireless microphone, **MB28H** Mobile bracket, **MB58** Remote controller bracket, **MB65** Mounting base platform, **OPC346** 9.8' DC cable, **OPC347** 23' DC power cable, **OPC440** 16.4' mic extension cable, **OPC441** Speaker extension cable, **OPC589** 8-pin mic jack adapter cable, **OPC600** 11.5' separation kit, **OPC601** 23' separation kit, **OPC646** Programming cable, **OPC647** 8.2' mic extension cable, **RMK3** MB58/OPC600/ OPC647 package, **SP10** Slim-line external speaker

FREE ITEMS included with some radios. See Price Guide for details.

IC-2720H **2M/70cm FM Transceiver** An advanced dualband mobile providing VHF/VHF, UHF/UHF simultaneous receive capability along with VHF/UHF full duplex operation. • Wide/narrow channel spacing. • 144-148, 430-450MHz transmit • Extra wideband (cell blocked) receive 118-550MHz (left side), 118-174, 375-550, 810-999MHz (right); includes weather, WX alert, and Air bands • 212 memories (10 banks) including 2 call channels and 10 scan edges • Auto repeater function • 50W (2M), 35W (70cm) • Separate control head • Full function, backlit remote control microphone with "hot keys" • Wide viewing angle • Independent controls for each band • 12 DTMF memory channels (24 digits) • User-selectable amber or green display with adjustable brightness • CTCSS and DTCS encode/decode operation with tone scan and pocket beep • Dynamic memory scan (DMS) • Control head and main unit microphone jacks • 1200/9600 bps 6-pin packet terminal • PC programmable with optional software and cable • 11.5' separation cable included • 13.8V DC @ 12A • 5.5"w x 2" h x 1.1"d, 5.29 oz. (control head), 5.5"w x 1.6 "h x 7.4"d, 3.08 lbs. (main unit) ..... **TBA**

This device has not been approved by the FCC. This device may not be sold or leased, or offered for sale or lease, until approval of the FCC has been obtained.

ICOM

IC-2800H VHF/UHF Dual Band FM Transceiver Top-of-the-line, advanced 2M/440MHz mobile dual bander. • 50W (VHF), 35W (UHF) • TX: 144–148 MHz, 430–450MHz • VHF wideband receive: 118–174MHz • 232 memories • 3" multi-function TFT color LCD with 4 user-selectable display modes • NTSC video port – display SSTV, CCD camera input, video input • Separate control head with connection cable and 2 mounting brackets • Independent tuning controls • Simple bandscope function • 9600 bps packet terminal • CTCSS enc/decoder • Crossband full duplex capability • Built-in duplexer • Selectable squelch attenuator & delay • Remote control capable • Auto repeater • Time-out timer • Auto power off • PC programmable • Full function, backlit mic • Requires 13.8V DC @ 12A • 5.5"w x 2.75"h x 1.3"d, 10.2 oz. (head); 5.5"w x 1.6"h x 6.6"d, 2 lb, 9 oz. (body).... C/O **$449.99**

Available Accessories:
BC96 Microphone holder, **CS2800** Windows cloning software, **EX1759** Infrared receiver, **HM90A** Wireless microphone, **MB28H** Mobile bracket, **MB65** Mounting base platform, **MB73** Controller bracket, **OPC346** 9.8' DC power cable, **OPC347** 23' DC power cable, **OPC440** 16.4' mic extension cable, **OPC478** PC cable, **OPC589** 8-pin mic jack adapter cable, **OPC647** 8.2' mic extension cable, **OPC872** Controller extension cable, **SP10** Slim-line external speaker

KENWOOD

SINGLE BAND FM MOBILE TRANSCEIVERS

Fully loaded with features and built to demanding MIL-STD specifications. Supremely user-friendly. • High RF output • 61 multi-function memory channels plus 1 call channel • Memory Name (MN) function with 6-digit alphanumeric display • DTSS selective calling • Multi-scan capability • Dual menu system • Multi-function microphone with backlit keys • DTMF memory function • Built-in CTCSS tone encoder (optional decoder) • Tone scan • Wireless cloning function • Repeater reverse switch • Lock function • Busy channel lock out • Auto power-off • Time-out timer • 13.8V DC @ <11A • 5.5"w x 1.5"h x 6.3"d, 2.2 lbs.

TM-261A 2M *(pictured)* 144-148MHz transmit; 118-174MHz receive • AM Airband receive • 50/10/5W • Auto repeater offset **$149.99**

TM-461A 440MHz 438-450MHz transmit; 400-470 MHz receive • 35/10/5W • Looks similar to TM-261A except for frequency display **$439.99**

Available Accessories:
MB201 Mobile brket, **PG2N** DC cable, **TSU8** CTCSS decoder

TM-331A 220MHz FM Mobile Transceiver Rugged and compact with features that guarantee reliable performance. Covers 222-225MHz transmit and receive • 25/10/5W • Easy-to-read, illuminated keys plus large LCD • 20 multi-function memory channels plus call channel • Multi-scan capability • Tone alert with elapsed time indicator • Page function • CTCSS tone encoder • Time-out timer • Lock function • Auto repeater offset • Repeater reverse switch • Multi-function mic supplied • 13.8V DC @ 6.5A • 5.5"w x 1.5"h x 6.3"d, 2.5 lbs..... **$499.99**

Available Accessories:
KQT8 CTCSS decoder, **MB201** Mobile brket, **PG2N** DC cable

FREE ITEMS included with some radios. See Price Guide for details.

TM-541A 1200MHz FM Mobile Transceiver Extremely compact and lightweight, perfect for mobile installation. Enhanced night-time operation with its illuminated keys, large LCD, and backlit microphone with DTMF. Covers 1240-1300MHz transmit and receive • 10W RF power output • Easy-to-read, easy to operate illuminated keys plus large LCD display • 20 multi-function memory channels plus call channel • Built-in CTCSS tone encoder • ALT (Automatic Lock Tuning) • Tone alert system with elapsed time indicator • DTSS (Dual Tone Squelch System) • Pager function • Auto-power off • Time-out timer • Multi-scan function • Programmable call • Programmable VFO • Offset and repeater reverse switches • Multi-function backlit DTMF microphone supplied • 13.8V DC @ <6A • 5.5"w x 1.5"h x 6.3"d, 2.4 lbs..... **$449.99**

Available Accessories:
DTU2 Digital paging unit, **KQT8** CTCSS decoder, **MB201** Mobile brket, **PG2N** DC cable

Look For This NEW & Check Out AES' Latest Additions.

DUAL BAND UHF/VHF MOBILES

High performance multi-banders that can receive three bands simultaneously (with the addition of an optional band unit). Available detachable front panel kit and wireless remote control functions (by external DTMF signal) add versatility. Triple receive function with triple display • Selectable frequency step • Built-in DTSS selective calling with page • 101 memories and memory bank system • Flexible scan and scan stop modes • Tone alert system with elapsed time indicator • Triple repeater functions • S-meter squelch • Separate antenna and speaker terminals, squelch and volume control per band • Automatic band change • Sub-band muting • Date/time display, stopwatch, alarm • On/Off timer • Time-out timer • Auto power-off • 13.8V DC @ <11A • 5.9"w x 1.5"h x 6.8"d, 3.3 lbs.

TM-642AD 2M/220MHz *(pictured)* 144-148MHz transmit/118-174MHz receive and 222-225MHz transmit/215-235MHz receive • 50/10W (2m); 25/10W (220MHz)..... **$739.99**

TM-742AD 2M/440MHz 144-148MHz tx/118-174MHz rx and 438-450MHz tx/410-438MHz rx • 50/10W (2m); 35/10W (440MHz) • Looks like TM-642AD except frequency display **$639.99**

Available Accessories:
DFK3 9' separation display cable kit, **DFK4** 13' remote cable kit, **DFK7** Deluxe 22' remote kit, **MJ88** Modular/8-pin adapter, **PG2N** DC cable, **TSU7** CTCSS decoder unit, **UT1200** 10W 1.2GHz unit, **UT220S** 25W 220MHz unit (for TM-742AD only), **UT440S** 35W 440MHz unit (for TM-642AD only), **UT50S** 50W 6M unit

TM-G707A 144/440MHz FM Dual Bander Extraordinarily user-friendly with its extra-large detachable control panel. Transmit ranges: 144-148 MHz and 430-450MHz; receive: 118-174 and 410-524MHz • 50/10/5W (VHF); 35/10/5W (UHF) • Detachable control panel with high-visibility amber-colored LCD display • 180 multi-function memory channels with alpha-numeric ID • Multi-scan functions • Priority scan function • Built-in CCTSS encoder and decoder • 1200/9600bps packet ready • Cross band repeater access • Selectable frequency step • S-meter squelch • Time-out timer • Dimmer control • Auto power-off • Multi-function backlit microphone with DTMF • 13.8VDC @ 11A • 5.5"w x 1.5"h x 7.4"d, 2.7 lbs **$299.99**

Available Accessories:
DFK3C 9' cable kit, **DFK4C** 13' cable kit, **DFK7C** Deluxe 23' remote kit, **MB201** Mobile bracket, **MJ88** Modular/8-pin adapter, **PG2N** DC cable, **PG4S** PC interface cable, **PG5A** Packet data cable, **VS3** Voice synthesizer

KENWOOD

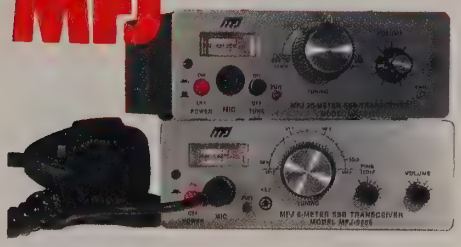
TM-D700A **Data Communicator 144/440MHz Dual Bander** Fully equipped to complement SSTV, GPS and APRS® operations. 144-148MHz and 430-450MHz transmit • Wide-band receive: 118-148, 136-175, 300-524 and 800-1300MHz (cell blocked) • 50/10/5W (VHF); 35/10/5W (UHF) • Detached control panel with extra-large backlit LCD and multi-function key display • Backlit microphone with alphanumeric input • Easy-to-use menu system • Advanced APRS-99 features • Built-in 1200/9600 bps TNC (AX.25) • DX cluster monitoring • Dual receive on same band for voice and data • 200 memory channels with 8-character alphanumerics • 2 call channels • 10 programmable memory scan banks • Built-in CTCSS and 1750 tone burst • Digital Code Squelch (DCS) • DTMF memory • Cross band and fixed band repeater operation • DCS code scan, tone, CTCSS scan • 10-channel program scan • Visual band scope • 13.8VDC @ 11.5A • 5.5"w x 2.4"h x 1.2"d, 0.4 lbs. (control), 5.5"w x 1.2"h x 7"d, 2.6 lbs. (main)..... **$599.99**

Available Accessories:
MB201 Mobile bracket, **MJ88** Modular/8-pin adapter, **PG2N** DC cable, **PG4X** 13' extension cable kit, **PG5A** Packet data cable, **VS3** Voice synthesizer

TM-V7A **144/440MHz FM Dual Bander** Easy-to-operate control panel with dual-mode, cool-blue, reversible LCD, offering positive and negative displays. Use with a PC, GPS, packet TNC or operate APRS position reporting and message system locally or nationally. Transmit: 144-148, 430-450MHz; receive: 118-174, 410-470MHz • 50/10/5W (VHF); 35/10/5W (UHF) • Data connector and separate automatic digital channel for APRS® • Detachable control panel • Dual receive on same band • Up to 280 multi-function memory channels (180 with 7-character alphanumerics) • Multi-scan functions • DTSS selective calling with page function • Built-in CTCSS enc/decoder • 1200/9600bps packet ready • Friendly operating menu • Automatic band change • Selectable frequency steps • S-meter squelch • Time-out timer • Audible frequency ID • Auto repeater offset (144MHz) • Auto power-off • Backlit multi-function mic with DTMF • 13.8VDC @ 10A • 5.5"w x 1.5"h x 7.4"d, 2.7 lbs **$419.99**

Available Accessories:
DFK3C 9' cable kit, **DFK4C** 13' cable kit, **DFK7C** Deluxe 23' remote kit, **MB201** Mobile bracket, **MJ88** Modular/8-pin adapter, **PG2N** DC cable, **PG4S** PC interface cable, **PG5A** Packet data cable, **VS3** Voice synthesizer

MFJ ENTERPRISES, INC.



LOW POWER SINGLE BAND SSB MOBILE TRANSCEIVERS

Easy to operate, no microprocessor – turn on and tune in. • 20W PEP (Less on VHF models) – plus Constant Current™ syllabic speech processing for an added 4–6dB advantage to cut through noise • Includes handheld dynamic microphone • 3A from 12V supply or battery • Low noise preamp and active double balanced mixer front end • Sharp 2.3kHz SSB crystal ladder filter reduces passband noise and fights QRM • TVI protection • Real S-meter • Agile tuning – reduction drive analog VFO – scan band quickly, zero in smoothly • Amp jack • 2.5"h x 6.5"w x 6"d, 2 lbs.

9402X 2M SSB Adventure Radio™, 7W .. **$269.99**
9406X 6M SSB Adventure Radio™, 10W **$249.99**
9410X 10M 20W Adventure Radio™..... **$249.99**

Available Accessories:
1770A 10M dipole for 9410X, **4110** Portable AC power supply, **4114** Rechargable power pack, **416** CW adapter, **971** 200W HF tuner (9410X only)

VHF DATA RADIOS

Don't tie up your expensive rig on a single packet channel, check out these low-cost MFJ Data Radios.

8621 **PacketOnly™ 2m Transceiver** Compatible with all TNCs with hardware DCDs and most TNCs with software DCDs • 1200/9600 baud • 5W output • Low current drain (15mA on receive and less than 1 amp on transmit) • 5"w x 5"d x 1.5"h • Crystals installed for 145.01MHz **$139.99**

8621X2 **PacketOnly™ 2m Transceiver** Ready for APRS use. • Crystalled and aligned for 144.390MHz • 5W output **$149.99**

Available Accessories:
4110 Portable AC power supply, **5100** Data radio cable (MFJ/TAPR), **5100YH** Data radio cable (KPC9612), **5100YV** Data radio cable (KAM/KPC3), **5106** Open end (6-pin mini Kenwood/Yaesu)

FREE ITEMS included with some radios. See Price Guide for details.

Secure
www.aesham.com

RANGER Communications, Inc.

SINGLE BAND 6M MOBILE

RCI-5054DX **All-Mode 6M Transceiver** Covers 50-54MHz • 10W CW/AM/FM, 25W PEP SSB • 10 programmable memory frequencies • Programmable repeater offset (splits of up to 2MHz) • ± 2.5kHz receiver clarifier • Noise blanker/ANL circuitry • Programmable receiver scanning for quick search of active frequencies • Includes Up/Down tuning hand microphone • 12V DC • Public address feature • 2.4"h x 7.75"w x 10.75"d **$319.99**

DUAL BAND MOBILES

RCI-2950DX **10/12M Transceiver** An old favorite updated with 12M, improved receiver, double FET balanced mixer, surface mount components and improved display lighting. Covers 24.8-24.99, 28-29.7MHz • 25W (SSB), 12W (CW), 10W (AM/FM) • Dual VFO • RIT • Noise blanker • Standard repeater offsets • Programmable tone • Scanning • 10 programmable frequencies • Lockout..... **$269.99**

RCI-2970DX Higher power version. 150W (SSB PEP), 50W (CW/FM/AM) **$399.99**

YAESU

*Yaesu prices beyond 9/30/02 were unknown at press date.

SINGLE BAND MOBILES

FT-1500M **2M FM Transceiver** Transmit: 144-148MHz, receive: 134-174MHz • 10 NOAA weather channels with "Weather Search" • 50/25/10/5W • Alphanumeric channel display • 130 multi-function memories with 6-character, alphanumeric labels • SmartSearch™ automatic memory loading • Priority channel • 16-digit, 8 memory DTMF autodialer • 50-tone CTCSS enc/decode • Bell alert CTCSS paging • Auto repeater shift • 1200/9600 baud compatible, rear panel data jack • Time-out timer • Auto power off • DTMF direct access mic • MIL-STD 810 D/E • DC voltage display • 13.8V DC @ 9.5A • 5"w x 1.4"h x 4.9"d, 2.2 lbs..... **$139.99**

Available Accessories:
ADMS2F Programming software, **MLS100** Mobile speaker, **RA0242900** Mobile bracket, **T9021810** DC cable

SINGLE BAND MOBILE TRANSCEIVERS

Manufacturer	ADI	ADI	ADI	ALINCO	ALINCO	ALINCO	ALINCO	ICOM	ICOM	KENWOOD	KENWOOD	KENWOOD	KENWOOD	MFJ	MFJ
Model	AR-147+	AR-247	AR-447	DR-M06TH	DR-135T & TP	DR-235T	DR-435T	IC-2100H & 25N	IC-V8000	TM-261A	TM-331A	TM-461A	TM-541A	8621	8621X2
TX Range (MHz)	144-148	222-225	430-450	50-54	144-148	222-224.995	430-449.995	144-148	144-148	144-148	222-225	438-450	1240-1300	145.01	144.39
Rx Range (MHz)[3]	118-171	216-229	400-470	40-60[1]	118-174	216-279.995	350-511.995	136-174	136-174	118-174	222-225	400-470	1240-1300	145.01	144.39
Aircraft Rx	Yes	N/A	N/A	N/A	Yes	No	No	No	No	No	No	Yes	No	No	No
Power Output	60/15/5W	30/15/5W	35/10/5W	20/1W	50/10/5W	25/10/5W	35/10/5W	50/10/5W	75/25/10/5W	50/10/5W	25/10/5W	35/10/5W	10W	5W	5W
TTP Microphone	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Tone Encode	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes/DCS	Yes	Yes	Yes	Yes	No	No
Tone Decode	Yes/DCS	Yes/DCS	Yes/DCS	EJ-20U	Yes	Yes	Yes	Yes	Yes/DCS	TSU-8	KQT-8	TSU-8	KQT-8	No	No
Memories	80	80	80	100	100	100	100	113	207	62	20	62	20	0	0
Alphanumeric	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No	No
PC Programmable	Yes	Yes	Yes	N/A	No	No	No	Yes	Yes	No	No	No	No	No	No
13.8V DC@	12A	8A	10A	5A	11A	8A	10A	12A	15A	11A	6.5A	10A	6A	>1A	>1A
Antenna Conn	SO-239	SO-239	SO-239	SO-239	SO-239	SO-239	SO-239	SO-239	SO-239	SO-239	SO-239	SO-239	Type-N	SO-239	SO-239
Size (h/w/d, in.)	1.5/5.5/6.5	1.5/5.5/6.3	1.5/5.5/6.3	1.6/5.5/4.5	1.6/5.6/6.9	1.6/5.6/6.9	1.6/5.6/6.9	1.6/5.5/7.1	2.0/5.9/5.9	1.6/5.5/6.3	1.7/5.5/6.6	1.7/5.5/6.6	1.6/5.5/6.3	1.5/5/5	1.5/5/5
Weight (lbs.)	2.65	2.65	2.65	1.5	2.3	2.3	2.3	2.5	2.22	2.2	2.65	2.2	2.4	0.8	0.8

Manufacturer	MFJ	MFJ	MFJ	RANGER	YAESU	YAESU
Model	9402X	9406X	9410X	RCI-5054DX	FT-1500M	FT-2600M
TX Range (MHz)	144-144.3	50-50.3	28.3-28.6	50-54	144-148	144-148
Rx Range (MHz)[3]	144-144.3	50-50.3	28.3-28.6	50-54	137-174	136-174
Aircraft Rx	No	No	No	No	No	No
Power Output	7W SSB	10W SSB	20W SSB	10/25W	50/25/10/5W	60W
TTP Microphone	No	No	No	No	Yes	Yes
Tone Encode	No	No	No	No	Yes	Yes
Tone Decode	No	No	No	No	Yes	Yes/DCS
Memories	0	0	0	10	130	170
Alphanumeric	No	No	No	No	Yes	Yes
PC Programmable	No	No	No	No	Yes	Yes
13.8V DC@	2A	3A	3A	7A	8A	10A
Antenna Conn	SO-239	SO-239	SO-239	SO-239	SO-239	SO-239
Size (h/w/d, in.)	2.5/6.5/6	2.5/6.5/6	2.5/6.5/6	2.4/7.75/10.75	1.4/5/5	1.6/6.3/6.3
Weight (lbs.)	2	2	2	1	2.2	2.9

* Remotable control head
(1) Requires keyboard modification
(2) Expanded memory requires optional EJ-19U
(3) 2 Piece configuration only
(4) 2M/220MHz Transceiver
(5) All models are Cellular Blocked
(6) AM aircraft receive mode
(7) Does not include projections (knobs, antenna jacks, etc.)
(8) Manufactuer only guarantees specs within the ham bands
(9) Requires internal modification (available on request)
(10) There are gaps in non-voice or data portions in certain bands
(11) Control head separate from body
(12) FT-8900R includes 10M/6M as well
(13) This device has not been approved by the FCC. This device may not be sold or leased, or offered for sale or lease, until approval of the FCC has been obtained.

All radios are cell blocked

FREE ITEMS included with some radios.
See Price Guide for details.

MULTI BAND MOBILE TRANSCEIVERS

Manufacturer	ALINCO	ICOM*	ICOM*	ICOM[11]	KENWOOD[11]	KENWOOD*	KENWOOD*	KENWOOD	KENWOOD*	RANGER	RANGER	YAESU	YAESU	YAESU*
Model	DR-605TQ	IC-207H	IC-2720H[13]	IC-2800H	TM-D700A	TM-G707A	TM-V7A	TM-642AD[4]	TM-742AD	RCI2950DX	RCI2970DX	FT-7100M	FT-8900R	FT-90R
Tx Range[5,8]	144-148 430-450	144-148 440-450	144-148 430-450	144-148 430-450	144-148 438-450	144-148 438-450	144-148 438-450	144-148 220-225	144-148 438-450	24.8-24.99 28-29.6999	24.8-24.99 28-29.6999	144-148 430-450	28-29.7,50-54 144-146 430-440	144-148 430-450
Rx Range (MHz)[5,8]	136-174 420-470	118-174[6] 440-450	118-550 (left) 118-174, 375-550 810-999 (right)	118-174[6] 430-450	118-470 (A band)[10] 136-175, 300-524 800-1300 (B band)[10]	118-174 410-524[6]	118-174 410-470[6]	118-174 213-235[6]	118-174 410-470[6]	24.8-24.99 28-29.6999	24.8-24.99 28-29.6999	108-137 (AM) 137-180, 320-480 810-999.99	28-29.7,50-54 108-180 320-480, 700-985	100-230 300-530 810-1000
Single or Dual Rx	Dual	Single	Dual	Dual	Dual	Single	Dual	Dual	Dual	Single	Single	Dual	Dual	Single
Power (2M)[12] Power (440MHz)	50/5W 35/5W	50/20/10/5W 35/20/10/5W	50/20/5W 35/20/5W	50/20/10/5W 35/20/10/5W	50/10/5W 35/10/5W	50/10/5W 35/10/5W	50/10/5W 35/10/5W	50/10/5W 25/10/5W	50/10/5W 35/10/5W	25W SSB 10W CW/FM/AM	150W SSB 50W CW/FM/AM	50/20/10/5W 35/20/10/5W	50W[12] 35W	50/20/10/5W 35/20/10W
Memories	100	182	212	232	200	180	280	101	101	10	10	262	800	186
Tone Encode	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Tone Decode	Yes	Yes	DCS	Yes	Yes	Yes	Yes	Opt. TSU-7	Opt. TSU-7	No	No	Yes	DCS	DCS
Duplexer	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes	Yes
Cross-Band Rpt.	Yes	No	Yes	Yes	Yes	No	Yes	Yes[9]	Yes[9]	No	No	No	Yes	No
Alphanumeric	No	No	No	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes	Yes
PC Programmable	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	Yes	Yes
9600b Compatible	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes[9]	Yes[9]	No	No	Yes	Yes	Yes
Separateable	No	Yes	Yes	Yes[3]	Yes[3]	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes
Height (in.) (Head)	1.6	1.6	1.6 (2)	1.6 (2.8)	1.6 (2.4)	1.6	1.6	1.9	1.9	2.375	3.875	1.9	1.6	1.2
Width (in.)	5.5	5.5	5.5 (5.5)	5.5 (5.5)	5.5 (5.5)	5.5	5.5	5.9	5.9	7.75	7.75	5.8	5.5	3.9
Depth (in)[7]	6.9	7.3	7.4 (1.1)	6.5 (1.3)	7.7 (1.3)	7.4	7.4	6.9	6.9	10.75	9.25	6.9	6.6	5.4
Weight (lbs)	2.4	2.6	3 (5.3)	2.5 (0.6)	2.6 (6.3)	2.7	2.7	3.9	3.9	4.2	7.4	2.2	2.2	1.4

AES
Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aeshum.com

YAESU

*Yaesu prices beyond 9/30/02 were unknown at press date.

FT-2600M Heavy-duty 2M FM Transceiver Transmit: 144-148MHz, receive: 134-174MHz • Selectable channel steps • Advanced track tuning • 60/25/10/5W • Alphanumeric channel display • Programming menu holds 33 operational settings • 175 multi-function memories with 8-character alphanumeric labels • High-speed, multifunction scanning • SmartSearch™ automatic memory loading • Auto Range Transpond System™ • CTCSS and DCS encode/decode • Automatic repeater shift (ARS) • 1200/9600 baud compatible, rear panel data jack • Time-out-timer • Auto power-off • Back-lit DTMF direct access microphone provides user-programmable function keys • 8-memory, 16-digit DTMF autodialer • Front mounted speaker • PC programmable with optional software • DC voltage display • MIL-STD 810 rating • 13.8V DC @ 9.5A • 6.3"w x 1.6"h x 6.3"d, 2.9 lbs **$159.99**

Available Accessories:
ADMS2E Programming software, **MLS100** Mobile speaker, **MMB48** Mobile bracket, **T9021810** DC cable

FREE ITEMS included with some radios. See Price Guide for details.

MULTI BAND MOBILES

FT-90R 2M/440MHz FM Transceiver Micro-sized with built-in cooling fan • TX: (2M) 144-148MHz; (440MHz) 430-450MHz • Wideband rx: 100-230, 300-530, 810-999.975MHz (cell blocked), includes AM aircraft • 50/20/10/5W (2M), 35/20/10/5W (440 MHz) • 186 memories with alphanumeric labels • 5 scanning modes • Built-in CTCSS/DCS enc/dec • ARTS™ • 1200/9600bps compatible • Auto repeater shift • Time-out-timer • Ultra-compact remote-head capability • DTMF direct access mic with user-programmable keys • 8-memory, 16-digit DTMF autodialer • Memory cloning • 13.8V DC @ 9.5A • 3.9"w x 1.2"h x 5.4"d, 1.42 lbs **$319.99**

Available Accessories:
ADMS2E Programming software, **MEK2** Mic extension kit, **MLS100** Mobile speaker, **RA0131900** Mobile bracket, **T9021810** DC cable, **YSK90** Remote separation kit

Used & Demo Equipment lists

Updated regularly on the web. Check them out and order **On-line**

FT-7100M Dualband Mobile The ruggedness and operating ease of single band mobiles, and the convenience of remote head mounting capability in a 144/430MHz dualband design. • 144-148, 430-450MHz tx; 108-137MHz (AM), 137-180MHz, 320-480MHz, 810-999.99MHz (cell blocked) rx • Dual receive: VHF/UHF, VHF/VHF, UHF/VHF • Selectable channel steps • 50W (144MHz), 35W (430MHz) power output • Efficient cooling system: Direct-flow heat-sink and thermostatically-controlled fan • 262 memory channels (120 regular, 5 pairs of band limit memories, and one "HOME" channel on each band) • Alphanumeric memory labels (6 characters on lower display field, 5 characters on upper) • Smart-Search™ auto memory loading system • 50 CTCSS encode/decode tones and 104 DCS encode/decode codes • CTCSS/DCS search • Auto-Range Transpond-er System • Band, band-limit, and memory scanning • 3 priority channel modes (VFO, memory, and home channel priority) • RF squelch – opens at user-defined signal level • Auto power-off • 1200/9600bps packet compatible • 5.8"w x 1.9"h x 6.9"d • 0.9" x 2.3" LCD display..... **$299.99**

Available Accessories:
ADMS2G Programming software, **AD3** 100W 2M/440 duplexer, **CT39** Packet cable, **MEK2** Mic extension kit, **MLS100** Mobile speaker, **MMB60** Quick release mobile mount, **MMB62** Remote control panel bracket, **T9021810** DC cable, **YSK7100** Remote separation kit

MIRAGE

Three models all measure RMS, peak forward and reverse power and SWR, directly without charts or calculations. Negligible insertion loss. Remotable coupler, SO-239 connectors. Requires 9V battery, or AC adapter. Low battery indicator. 5.75"x 4.5"w x 5.75"d, 3.5 lbs.

MP-1 1.8-30MHz; 25, 200, 2KW PEP **$219.99**
MP-2 50-200MHz; 50, 500, 1.5KW PEP **$219.99**
MP-3 420-450MHz; 5, 50, 150W PEP.... **$249.99**

FT-8900R Quad Band FM Mobile Nation- or world-wide FM communications from a vehicle! • 28-29.7, 50-54, 144-146, 430-440MHz tx • 28-29.7, 50-54, 108-180, 320-480 and 700-985MHz (cell blocked) wide frequency receive • 50W (10/6/2M), 35W (430MHz) high power output • FM satellite operation • Over 800 memories • DTMF auto-dial memory • One-touch band-pattern "Hyper-Memory," allows set up and storage of complete transceiver configuration settings. Saves button pushing! • CTCSS/DCS encode/decode • Smart-Search™ auto memory loading • Cross band repeat • Independent, 2-channel, dual receive and full duplex (separate volume and squelch controls, as well as S-meters) • Built-in duplexer • WIRES™ compatible • RF squelch • Auto repeater shift • ARTS™ capable • User-programmable microphone keys • Easy set up for FM satellite operation • Battery voltage meter • Time-out timer • Automatic power off • Large, easy-to-read LCD display • 1200/9600 bps packet • Thermal-sensored cooling fan • Remote head mounting capability • 5.5"w x 1.6"h x 6.6"d, 2.2 lbs..... **$469.99**

Available Accessories:
CT39 PPacket cable, **MEK2** Mic extension kit, **MLS100** Mobile speaker, **MMB62** Remote control panel bracket

YAESU

YS-60 Monitors average (CW) and peak (SSB) transmitter power and VSWR. Covers 1.6 to 60MHz, up to 2KW. Ranges: 0/200 and 2000W PEP. 50Ω imped., SO-239 connectors. Requires 12V DC for lamps and internal circuits. 4.75"w x 2.75"h x 3.5"d, 1.5 lbs **$129.99**

YS-500 Similar to YS-60, but covers 140–525MHz and has 4/20 and 200W PEP ranges..... **$109.99**

AMATEUR ELECTRONIC SUPPLY
5710 W. GOOD HOPE ROAD.
MILWAUKEE, WISCONSIN 53223
(414) 358-0333

NO. 0000

DATE _____ 19___

THIS CERTIFICATE _____

TO MERCHANDISE _____
VALUED AT _____ DOLLARS $_____

PRESENTED BY _____

AUTHORIZED SIGNATURE

Gift Certificates For the Undecided

Coaxial Dynamics

RF DIRECTIONAL WATTMETERS

81000-A **RF Directional Wattmeter** Accurate RF Power measurement in 50Ω coaxial systems. Uses an internal line section and "Quick Match" plug in elements in the range of 0.1–10,000 watts full scale, and from 0.45 to 2300MHz.

Simply plug in the appropriate measuring element and select forward or reflected direction. Measured average RF power is indicated directly on the large 4.5" "taut-band" meter with three scale display. The meter is also mirrored and shock mounted to provide the most reliable and accurate readings.

Strong shock-proof housing. With SO-239 connectors (Type-N female Special Order) **$260.99**

83000-A **RF Peak Reading Wattmeter** Similar in appearance and operation to the standard Model 81000-A wattmeter. Contains an amplifier which allows measuring of both Average and Peak Envelope Power (PEP) with the flip of a switch. Internal 9V battery is required and supplied for peak reading mode **$393.99**

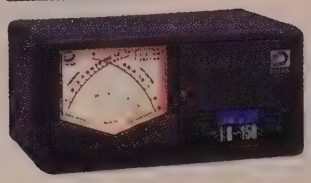
STANDARD PLUG-IN ELEMENTS

82004 2 to 30MHz; 50W **$87.99**
82005 2 to 30MHz; 100W **87.99**
82006 2 to 30MHz; 250W **87.99**
82007 2 to 30MHz; 500W **87.99**
82008 2 to 30MHz; 1000W **87.99**
82009 2 to 30MHz; 2500W **125.99**
82010 2 to 30MHz; 5000W **125.99**
82013 25 to 60MHz; 10W **71.99**
82014 25 to 60MHz; 25W **71.99**
82015 25 to 60MHz; 50W **71.99**
82016 25 to 60MHz; 100W **71.99**
82029 100 to 250MHz; 10W **71.99**
82031 100 to 250MHz; 50W **71.99**
82033 100 to 250MHz; 250W **71.99**
82046 400 to 1000MHz; 10W **71.99**
82048 400 to 1000MHz; 50W **71.99**
82049 400 to 1000MHz; 100W **71.99**

ACCESSORIES

88000 Type-N female "QM" connector **$9.99**
88800 Carrying case **55.99**

DAIWA industry co. ltd.



CROSS NEEDLE SWR/POWER METERS

CN-101 Covers 1.8-150MHz, rated at 1500W from 1.8-60MHz and up to 1000W at 144MHz. Shows Forward and Reverse power and VSWR simultaneously. Three power ranges: 15/150/1500W (RMS or PEP); ±10% of full scale accuracy. SWR detection sensitivity: 4W minimum. 50Ω impedance, SO-239 connectors. 6"w x 3"h x 3.875"d, 1.5 lbs ... **$99.99**

CN-103M Same as CN-101, but covers 140-525MHz and rated at 200W. Two power ranges: 20/200W (RMS or PEP) **$99.99**

PROFESSIONAL SERIES

The CN-801 series of cross needle meters features the most accurate meter and largest meter face in the Daiwa line. The large, easy-to-read meter has .5W increments and is lighted. This is truly a professional quality meter. • 5W SWR detection sensitivity (min.) • 50Ω impedence • 6"l x 4"h x 4.5"w • 2.2lbs

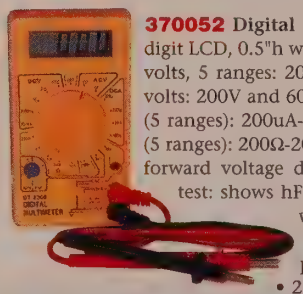
CN-801H 1.8-200MHz, 20/200/2kW..... **$149.99**
CN-801V 140-525MHz, 20/200W..... **$154.99**
CN-801S 900-2500MHz, 2/20W, Type-N connectors..... **Special Order**

VANCO™

LOW COST METERS

SWR-1 **Field Strength or SWR Meter** *(left)* Range: 3.5-150MHz, Impedance: 52Ω, SWR: 1:1–3:1, Accuracy: 5%, Meter sensitivity: 300uA. 5" RF pick-up antenna. 6"h x 2"w x 2.875"d, 14 oz. .. **$19.99**

SWR-3 **SWR Meter** *(right)* Range: 1.7-30MHz • Impedance: 50–52Ω • SWR: 1:1-3:1 • Accuracy: 5% • Sensitivity: 300uA • 2.5"x3.5"x3", 6oz..... **$14.99**



370052 **Digital Multi-Meter** 3.5 digit LCD, 0.5"h with polarity • DC volts, 5 ranges: 200mV-600V • AC volts: 200V and 600V • DC current (5 ranges): 200uA-10A • Resistance (5 ranges): 200Ω-20kΩ • Diode test: forward voltage drop • Transistor test: shows hFE value • Comes with 100-hour, 9V battery and plug-in test leads • 2.76"w x 4.96"h x 0.94"d, 6oz **$19.99**

Bel MERIT

DX-405 **Multi-function Multimeter** 10 functions/39 ranges • 3.5 digit, manual ranging • Frequency meter, to 20MHz • 0.25% DCV basic accuracy • Measure voltage, current, resistance & diode • Continuous beeper • Data hold • Auto power off • Input warning • Tilt stand with holder • Holster • 4"w x 7.5"h x 1.5"d, 1.5 lb..... **$69.99**

DM-80 **Pocket Digital Multimeter** 3200 count • 32 segment bargraph • Auto/manual ranging • Auto off • Data hold • Range • Voltage, AC/DC 450V • Current, AC/DC 300mA • Resistance, 30MΩ • Diode test • Continuity beeper • Over range indication • Low battery mark auto polarity • Carrying case included • 2"w x 4.1"h x 0.4"d, 3.2 oz **$34.99**

VELLEMAN

DVM-810 **Digital Multimeter** Compact design makes this meter a perfect fit for any toolbox or even shirt pocket! It features multiple functions and an easy-to-read LCD display. • 3.5 digits • 19 ranges • Measures voltage, current, resistance, transistor and diode • Battery included..... **$9.99**

DIAMOND ANTENNA

SWR/POWER METERS

(left) Five models measure power and SWR with 5–10% F.S. accuracy. Illuminated meter, sensor switch, LED indicator. Power ratings for intermittent operation. For continuous, ratings vary with frequency. SO-239 connectors on all except SX-1000 (type-N). 6"w x 2.5"h x 4"d, 2 lbs.

SX-100 1.6-60MHz, 30/300/3kW PEP... **$134.99**
SX-200 1.8-200MHz, 5/20/200W PEP **$94.99**
SX-400 140-525MHz, 5/20/200W PEP.. **$114.99**
SX-600 Dual band, 1.8-160MHz and 140-525 MHz, 5/20/200W PEP ranges..... **$169.99**
SX-1000 Dual band, 1.8-160MHz and 430-1300MHz, 5/20/200W PEP ranges..... **$214.99**

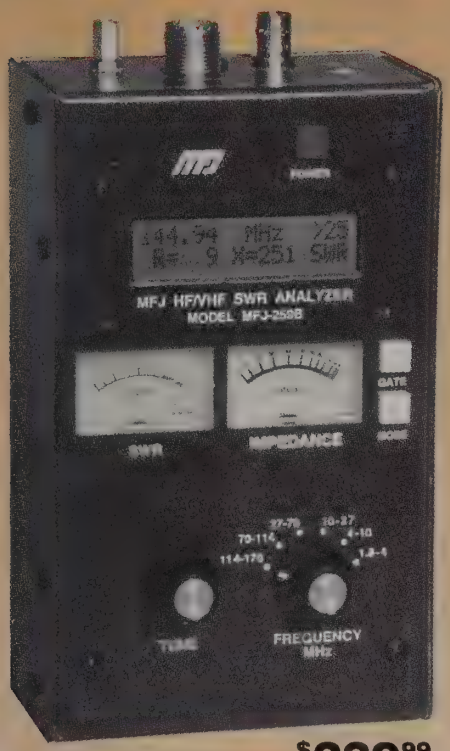
CROSS-NEEDLE SWR/POWER METERS

(right) Indicate forward/reflected power and SWR simultaneously. 50Ω impedance, SO-239 connectors, 10% F.S. accuracy, 3.3"w x 3.4"h x 3.7"d, 9 oz.

SX-20C 3.5-30/50-54 and 130-150MHz ranges; 30/300W. Needs 5W minimum for VSWR. **$89.99**
SX-40C 144-470MHz (220MHz with correction factor); 15/150W (3W minimum power)... **$79.99**

AES
Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

1.8-170 MHz



259B $239.99

269 SWR Analyzer

E-X-P-A-N-D-E-D Frequency Coverage & Added Features

1.8–170 MHz plus 415-470 MHz

Looks nearly identical to, and has all the features of the 259B PLUS...

- Covers 1.8 to 170 MHz plus 415 to 470 MHz
- Built-in CoaxCalculator™ – calculates coax length in feet given coax length in electrical degrees and vice versa, and any velocity factor (great for building matching sections and phasing lines for multiple antennas).
- New 12-bit A/D converter gives much better accuracy and resolution than common 8-bit A/D converters.

New 1.8 to 170 MHz Range features:

- Read Complex Impedance as series equivalent resistance and reactance (Rs+jXs) or as magnitude (Z) and phase (degrees). Also reads parallel equivalent resistance and reactance (Rp+jXp).
- Measure SWR and loss of coax with any characteristic impedance from 10 to over 600Ω, including 50, 51, 52, 53, 73, 75, 93, 95, 300, 450Ω.

415 to 470 MHz Range features:

- Read SWR, return loss, reflection coefficient simultaneously, and cable loss in dB and match efficiency.
- Has LCD logarithmic SWR bargraph and SWR meter for quick tuning.

269 $319.99

www.mfjenterprises.com

MFJ SWR Analyzers

... for Serious Antenna Performance!

You've spent a lot of time and money on your antenna system, so why not make sure it's giving you top performance? An MFJ SWR Analyzer will do that – plus, it will make you very popular because all of your Ham buddies are going to want to borrow it!

The MFJ 259B and 269 are complete Ham radio test stations, including – Frequency Counter, RF signal generator, SWR Analyzer, RF Resistance and Reactance Analyzer, Coax Analyzer, Capacitance and Inductance Meter & more!

The 259B and 269 can take the frustration out of tuning your antennas for maximum performance. Gone are the days of using a conventional, sometimes questionable, SWR meter. You will no longer have to drag your rig (RF source) out into the yard. No more running in and out of the house or up and down the tower to make those seemingly endless readings and adjustments.

The 259B and 269 are self-contained and fully portable units, with built-in battery power and RF source so you can take it right to the antenna. Take one reading to get a complete picture of your antenna, and make tuning adjustments on the spot.

Operation is simple, just connect the feed line, set the bandswitch and tune the dial – just like a transceiver. All information is clearly displayed instantly on the large, easy-to-read, two-line LCD screen and side-by-side meters.

When tuning transmission lines or making up phasing harnesses for stacking antennas, you can quickly determine exact 1/4 or 1/2 wavelengths. You can also determine the velocity factor, coax cable loss, length of coax and distance to a short or open in coaxial cable.

Read SWR, return loss and reflection coefficient at any frequency, simultaneously, or inductance and capacitance at RF frequencies at a glance.

The 259B and 269 operate on 110V with the 1312 adapter ($14.99) or on 10 "AA" internal batteries, not included. For rechargeables, there is a built-in charger, MFJ's 1312 required.

All metal cabinet, 6-3/4"h x 4"w x 2"d.

Overall, here's what you can do...

- Read antenna SWR & Complex Impedance from 1.8-170MHz with the 259B and additionally 415-470MHz with the 269. Complex Impedance can also be read as series resistance and reactance (R+jX) or as magnitude (Z) and phase (degrees).
- Find true resonant frequency of antenna.
- Trim dipoles and verticals to resonance.
- Adjust your Yagi, quad, loop and others. Change antenna spacing and height – watch SWR, resistance and reactance change instantly.
- Perfectly tune critical HF mobile antennas in seconds for top performance – without subjecting your transceiver to high SWR.
- Measure your antenna's 2:1 SWR bandwidth on one band, or analyze multiband performance over the entire spectrum.
- Check SWR outside the ham bands without violating FCC rules.
- Adjust your antenna tuner for a perfect match without creating QRM.
- Take the guesswork out of building and adjusting phasing lines, matching networks and baluns.
- Accurately measure distance to a short or open in a failed coaxial transmission line. Measure the length of a roll of coax and also determine loss, velocity factor and impedance.
- Measure frequency with built-in counter.
- Frequency counter function.
- Troubleshoot and measure resonant frequency and approximate Q of traps, stubs, transmission lines, RF chokes, tuned circuits and baluns.

SWR Analyzer Accessories

29C Carrying Case – Tote your 259B anywhere with this custom carrying case. Wear it around your waist, over your shoulder, or clip it onto the tower while you work. Has back pocket for carrying dip coils and coax adapters. Special foam filled fabric cushions blows and protects unit from wear and tear. **$24.99**

39C Carrying Case – Fits the 269..... **$24.99**

66 Dip Meter Adapter – For grid dip operation. Set of two plug-in coils covers 1.8-170MHz range **$19.99**

98 Accessory Pack – Includes 39C case, 66 dip adapter and 1315 AC adapter..... **$54.99**

99 Accessory Pack – Includes 29C case, 66 dip coils and 1315 AC adapter..... **$54.99**

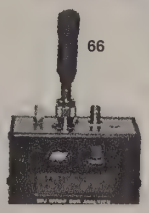
99B Accessory Pack – Includes 10 "AA" NiMH batteries, 29C case, 66 dip coils and 1315 AC adapter..... **$77.99**

99C Accessory Pack – Includes 10 "AA" NiMH batteries and 1315 AC adapter..... **$34.99**

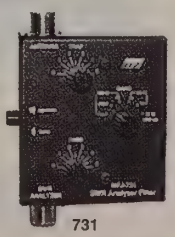
731 Tunable Measurement Filter – Use with 259B or 269 for accurate measurements in the 1.8-30 MHz range while in the presence of strong RF fields from nearby broadcast stations or other RF emitters **$89.99**

92AA01
1300mAh AA Ni-MH Battery...ea. **$2.99**
92AA10
10 Pack.... **$24.99**

29C / 39C



66



731

MFJ ENTERPRISES, INC.

SWR/POWER METERS

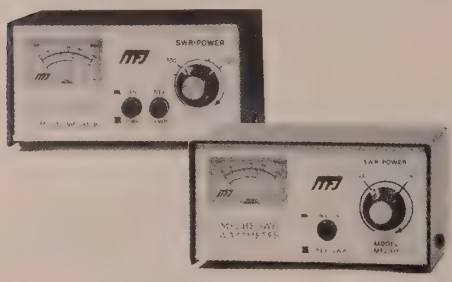
864 (bottom) Covers 1.8-60MHz, 144MHz and 440MHz bands. Dual sensors – connect an HF and VHF/UHF rig at the same time. Monitor SWR and power of either. Lighted Cross-Needle meter indicates 30/300W forward and 6/60W reflected power simultaneously. Uses 12V DC for meter light. 7.25"w x 2.5"h x 2.25"d **$84.99**

862 (middle) Similar to 864, but for 144MHz, 220 MHz and 440MHz. Ranges: 30/300W forward and 6/60W reflected. 5.75"w x 2.5"h x 2.25"d.. **$54.99**

860 *(top)* Similar to the 864, but covers HF 1.8 to 60MHz. Ranges: 30/300W forward and 6/60W reflected. 4.5"w x 2.25"h x 3"d **$44.99**

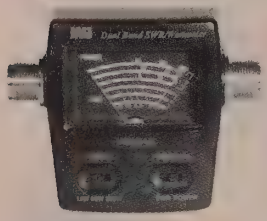
815B Features large 3 in. Cross-Needle meter for accurate SWR and peak or average power readings from 1.8 to 60MHz. Ranges: 200/2000W forward and 50/500W reflected. Push button selection. 12V DC meter light. 7.25"w x 2.5"h x 2.25"d ... **$79.99**

817 Looks and features similar to 815B but covers 144/440MHz bands. Ranges: 200/20W forward and 50/5W reflected. 7.25"w x 2.5"h x 2.25"d.. **$89.99**



812B (top/left) Indicates forward and reflected power on 2M/220MHz and SWR from 14–220MHz, plus field-strength from 1–220MHz. Power ranges: 30/300W. 4.5"w x 2.25"h x 3"d **$34.99**

816 Toroidal Meter (bottom/right) Indicates forward and reflected power from 1.8–30MHz. Power ranges: 30/300W. 4.5"w x 2.25"h x 3"d..... **$34.99**



844 VHF/UHF **SWR/Power Meter** Covers 144 and 440MHz, rated up to 200W. Easy to read multi-colored meter shows SWR/POWER in three ranges: 15, 60, and 200W. Insertion loss is 0.3 dB or less. Measures only 3.75"w x 3"h x 1.25"d – great to take along for portable, HT or mobile rigs **$69.99**

GrandMaster™ 3.25" x 1.25" meter, forward/reflected. 3 ranges. 13.8V/110V. 7.5"w x 3.125"h x 4.25"d.

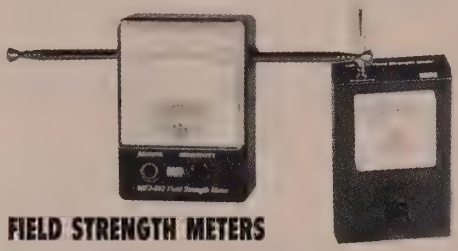
870 (HF range) Covers 1.6 to 60MHz. Power ranges: 30/300/3000W **$124.99**

872 (HF/VHF range) Covers 1.8 to 200MHz. Power ranges: 5/20/200W **$94.99**

873 (VHF/UHF range) Covers 125 to 525MHz. Power ranges: 5/20/200W **$104.99**

874 (HF/VHF/UHF range) Covers 1.8 to 525MHz. Power ranges: 5/20/200W **$159.99**

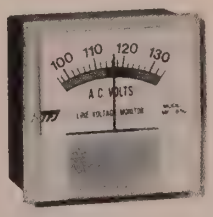
267 Precision SWR/Wattmeter with Dry Dummy Load 3", lit, cross-needle meter shows true-peak, average forward/reflected power and SWR. • 1.8–54MHz • 300/3000W forward, 60/600W reflected – SWR 1:1 to 8:1 • Load-to-antenna switchable. 50Ω dummy load rated at 100W (10 min.) or 1.5kW (10 sec.). • Usable up to 60MHz • SWR 1.3:1 @ 30MHz. 12VDC lamp or 120VAC with 1312D or 9V battery. Aluminum, perforated • 4"w x 3.125"h x 10"d..... **$119.99**



FIELD STRENGTH METERS

801 Super Compact Field Strength Meter *(right)* You can read relative field strength from your antenna, measure antenna performance and discover how strong your antenna field is. Its compact size fits in the palm of your hand, only 2.375"w x 3.625"h x 1"d. Telescopic whip included ... **$19.99**

802 Bipolar Field Strength Meter *(left)* Dual whips are included, 2.375"w x 4"h x 1.5"d..... **$39.99**



MISCELLANEOUS

850 Line Voltage Monitor *(left)* Plug into any 110V AC outlet and monitor the line voltage on an expanded/colored 95 to 135V AC scale. Measures 2.25"w x 2.25"h x 1.5"d **$19.99**

204B Antenna Bridge *(right)* Quickly optimize 1.8-30MHz antennas for peak performance. Portable. Determine if an antenna is too long or short, measure resonate frequency and resistance to 500Ω. Built-in resistance bridge, null meter and oscillator driver. Requires 9V. 4"h x 2"w x 2"d..... **$79.99**

224 2M FM **SignalAnalyzer™** Measure signal strength over 60dB range, antenna gain, beamwidth, front-to-back ratio, sidelobes, feedline loss. Check and set FM deviation. Plot field strength patterns, position antenna, measure preamp gain, tune transmitters and filters. Use scope to analyze modulation wave forms, measure audio distortion, noise and peak deviation. Covers 143.5-148.5MHz. Headphone jack, battery (9V) check function. 4" x 2.5" x 6.75" **$149.99**

852 Power Line Noise Meter A sensitive (0.3 uV) superhet AM receiver with a wide range noise level meter and wide-range AGC (over 70dB). Tuned to the 135 MHz region where activity is a minimum and radiation from corona and arcing is far more localized. The telescopic, direction-finding dipole antenna is balun isolated and optimized to give a sharp, clearly defined null for accurately pinpointing noise sources. Plug in your headphone and hear the noise you're tracking or plug in a tape recorder and record the offending noise for playback to your local power company. Compact size: 2.8"w x 4"h x 1.5"d. Uses a 9 volt battery.. **$89.99**

805 Pocket-Sized RFI Detector Track down and eliminate RFI caused by radiating cables and wires. Simply clamp the top mounted current transformer over suspected cable or wire (up to 1/4 inch diameter) to detect RFI causing common-mode currents. Useable from VLF to VHF. Uses 9V battery. 2.25"h x 4.75"h x 1"d **$79.99**

886 Pocket Frequency Counter Covers 1MHz–3GHz • 300 MHz direct count with 0.1Hz/second resolution • 10-digit, high contrast LCD • Impedance: 50Ω (VSWR @ <2:1) • Sensitivity: 0.8mV @ 100 MHz, 7mV @ 300MHz, 6mV @ 1GHz, 100mV @ 2.3GHz • 15 dBm max. input • Synchronous detector • Ultra-sensitive RF signal strength bargraph • 4 selectable gate times • Up to 6 hours from rechargeable Ni-Cads (included) • Includes 110 VAC adapter and telescoping antenna • 2.75"w x 3.25"d x 1.25"d **$109.99**

854 RF Current Meter A top-mounted sense coil snaps over wires and cables, etc. up to 1/2" diameter • Measures actual RF currents in antenna elements, radials, ground wires and on the outside of coax feedlines • Six ranges, 30mA to 3A • Accurate from 1-30MHz • Range with variable sensitivity control, allows tracking down RFI-causing current on household wiring and cables • Press-to-test power circuit turns unit off automatically after 15 seconds to provide long battery life • Built-to-last, all-aluminum case and G-10 PC board • 2.5"w x 5.5"h x 1.5"d, 11 oz **$89.99**

AES
Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

DAIWA

Accurate Measurements NO EXCUSES.

Professionally Engineered "Cross Needle" Meters

Forward power, reflected power and VSWR are displayed simultaneously! No calibration required! Daiwa high quality instruments make the tedious measuring of SWR and Power during antenna tests, transmitter matching and tuning a very easy task.

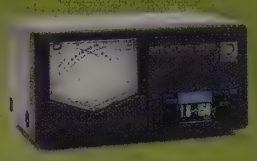
Professional Series

Accurate and dependable featuring a large, easy-to-read lighted meter. 13.8VDC jack on rear panel. 6"l x 4¼"h x 4½"d (approx.)

CN-801H
Frequency Range: 1.8-200MHz
Forward Power Ranges: 20/200/2000W

CN-801V
Frequency Range: 140-525MHz
Forward Power Ranges: 20/200W

CN-801S
Frequency Range: 900-2500MHz
Forward Power Ranges: 2/20W



Economy Series

Accurate and dependable bench meters at an economy price. Lighted, 13.8VDC jack on rear panel. 6"l x 3"h x 4"d (approx.)

CN-101
Frequency Range: 1.8-150MHz
Forward Power Ranges: 15/150/1500W

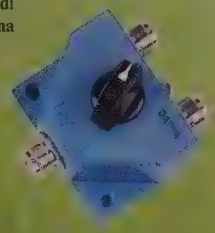
CN-103M
Frequency Ranges: 140-525MHz
Forward Power Ranges: 20/200W

CN-103N (N-Type Conns)

NEW! POWER SUPPLY

SS-330W
Convenient, lightweight 30 amp switching supply.

30 amps continuous
Dual lighted meters
Adjustable voltage (5–15V)
Built-in fan
Weighs less than 5 lbs.
Carrying handle



Coax Switches

Patented design and excellent RF characteristics. Automatic grounding of unused circuits with heavy-duty die cast cavity construction.

CS-201
2-Position 600MHz Switch
Max. Power: 2.5kW PEP/1kW CW
Conns: SO-239

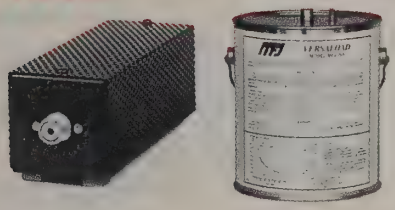
CS-201GII
2-Position 2GHz Switch
Max. Power: 1.5kW CW
Conns: Gold plated N-Type

NCG COMPANY
(714) 630-4541 • (800) 962-2611
(714) 630-7024 fax
www.natcommgroup.com

Daiwa CN-801S, CN-103N, CS-201GII and SS-330W, above, are Special Order

---

MFJ ENTERPRISES, INC.



DUMMY LOADS

250 Versaload *(right)* 50Ω oil-filled dummy load providing low VSWR to 400 MHz. Rated at 1 KW CW or 2KW PEP for 10 min., with 50% power rating for 20 minutes and 200W CW (400W PEP) continuous. 7.25"h x 6.625" diameter **With oil $59.99**

250X Same as above, but requires oil **39.99**

Dry Loads *(left)* Air cooled, non-inductive 50Ω resistor mounted in a metal housing. Full rated load for 30 seconds with derating curve to 5 minutes.

260C (HF/VHF) Rated at 300W. 1:1 SWR to 30MHz, .5:1 to 650MHz. 2.5" x 2.5" x 7"... **$34.99**

260CN With type "N" connectors..... **39.99**

264 (UHF) Performs from 1.3 to 650MHz, usable to 750MHz. Rated at 1.5KW for 10-seconds and 100W for 10-minutes. 3"w x 3"h x 9"d..... **$69.99**

264N With type "N" connectors..... **79.99**

BENCHER, INC.

IAMBIC & SINGLE LEVEL PADDLES

Affordable standard for CW operators world-wide.

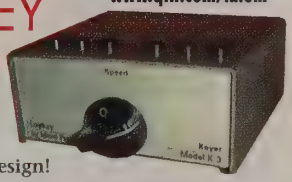
BY-1 Black base..... **$109.99**
BY-2 Chrome..... **$129.99**
BY-3 Gold..... **$299.99**
BY-4 Black and gold..... **$189.99**

Used & Demo
Equipment lists
Updated regularly on the web.
Check them out and order **On-line**

Secure
www.aesham.com

LOGIKEY
www.qth.com/idiom

IDIOM Press



Full featured version of the famous Super CMOS III keyer design!

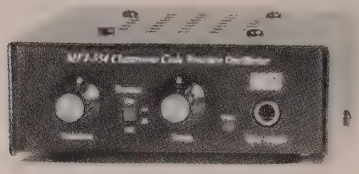
K-3 Non-volatile memory • 6 editable messages, 1,530 characters • Messages can include programmed functions like automatic contest numbers and speed changes • Message can allow paddle inserted text & loop for continuous replay • Linear speed control (5-60 WPM) • Adjustable weighting and monitor tone • Tune function • Auto character spacing if desired • Can emulate others, including Curtis "A" timing • Ultra Speed mode for messages up to 99 WPM • Contest serial numbers 001-9999, with push button decrement • Beacon capability • Full compensation for QSK rig timing • Keys solid-state or grid-blocked tube rigs • 12V DC, < 0.1 amp • 4.25"w x 2.25"h x 4.75"d..... **$129.99**

HK-3 Hook-up kit for the K3 Includes Paddle-to-Keyer cordset; RCA-to-RCA keyer output cable and 2.5 mm DC power plug cordset for 12V.... **$10.99**

MFJ ENTERPRISES, INC.

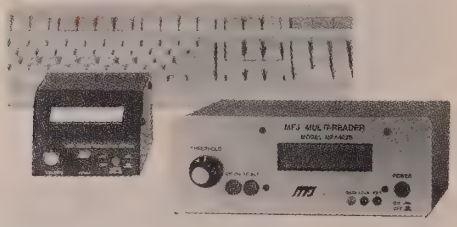
FOR LEARNING/PRACTICING CODE

414 Professional Classroom Tutor Features include LCD readout, printer port and audio tape recording output. Build and save 3 custom sets for extra practice. Or combine these to obtain 48 characters for using the KOCH method. Customize random words for practice. Use with 144/440MHz FM HT or HF transceiver for on-air code practice. VECs can give up to 16 exams. Full-featured memory keyer (1000 character memory, semi/auto modes, iambic A/B, reverse paddle, change speed and tone on-the-fly). Practice sending into the 414 with iambic paddle or straight key. Use built-in or external speaker or headphones. Includes serial port cable and open-end patch cable. 12 VDC or 110 VAC. 8.5"w x 2.25"h x 6"d **$189.99**



554 Code Practice Oscillator Designed for classroom use with great sound that enhances learning of Morse code. Plenty of volume from a built-in 1W amp and 3" speaker. Volume control and adjustable tone control (400-1000Hz). On/off switch, power ON LED, 1/4" key jack, 3.5mm external speaker jack and DC input jack. Requires 12V DC. All-metal enclosure. 4.25" x 1.5"h x 5"d **$79.99**

550 Telegraph Key..... **$7.99**



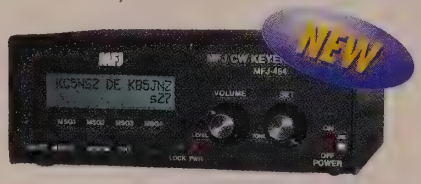
AIDED CW SENDING/RECEIVING

452 Super CW Keyboard *(left)* A stand alone CW keyboard that includes an RFI suppressed keyboard, a two line 16-character non-volatile LCD display. Send effortless CW by just typing the characters as you see what you are sending on the display. No computer to boot up, no program to load. • Speed: 5–100WPM • Weight: 5–95% • Sidetone: 300–3000 Hz sidetone • Serial Numbers (0–9999) • Has buffer and memory full audible indicators. Keys solid-state and tube-type rigs. Requires 12VDC..... **$129.99**

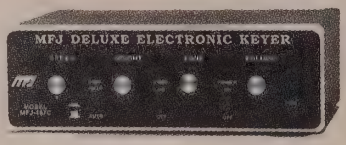
462B MultiReader™ *(right)* Supply this unit with audio from a receiver or transceiver; tune in CW, RTTY, ASCII or AMTOR (FEC) signals; and read the auto decoded text directly from the 2-line, LCD display. • Copy most standard shifts and speeds in all modes • *AutoTrak™* feature helps track and decode high speed CW • 8K memory stores several pages • PLL modem technology digs out weak signals • Precision tuning indicator • Printer port • 6.25"w x 2.5"h x 6.25"d • Requires 12VDC..... **$169.99**

461 Pocket-Size Morse Code Reader™ No cables to hook-up and no other equipment needed. Simply hold the unit near your receiver and it instantly displays CW text in English! Automatic speed tracking and instant 140-character replay on a 32-character LCD. If desired, a serial port lets you display CW text on a monitor using a computer and terminal program. Connect directly to a receiver with optional cable when it's too noisy or CW is unwanted. • Battery saver (uses 9V – not included) • 2.25"h x 3.25"w x 1"d, 5.5 oz..... **$79.99**

5162 Receiver Cable Connects the 461 to a radio's external 3.5mm jack **$5.99**



464 CW Reader With Built-In Keyer This unit simply plugs into a transceiver's speaker/phone jack and key jack. Add a single or iambic paddle or computer keyboard and it's ready for easy, complete CW operation. Sends and reads CW at 5 to 99 WPM with automatic speed tracking. • Easy menu operation • Large 2-line LCD shows "send and receive" text • Front panel speed and volume controls • 4 message memories • Type-ahead and read-again buffers • Adjustable weight and sidetone • Built-in speaker • RFI proof..... **$169.99**

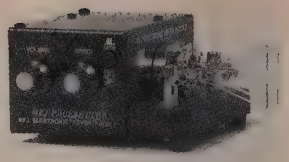


KEYERS

407D Deluxe Electronic Keyer Features dot-dash mem., self completing dots and dashes; jam-proof spacing. RF proof, instant start. Single squeeze, or straight key. Front panel controls: speed, weight, tone & volume, ON/OFF, tune, auto or semi-automatic. Selectable A or B-type iambic keying. Built-in speaker, uses 9V battery. 7"w x 2"h x 6"d .. **$69.99**

401D Econo Electronic Keyer II Similar to 407D with external speed and volume controls, internal weight and tune controls. Uses 9V battery **$49.99**

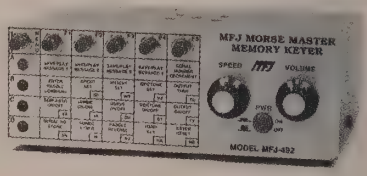
434 Contest Voice Keyer™ Microprocessor-controlled, transformer-coupled – No RFI, hum or feedback. Automatically call CQ and send a call. Store frequently used phrases, like *"CQ. Contest this is AA5MT,"* in your own voice. Record and play back five natural sounding messages totaling 75 seconds. Repeat messages continuously and vary the delay from 3–500 seconds. Receive and play back off-the-air signals. Easy to use – plug in an 8-pin microphone cable then plug the 434 shielded cable into the mic input. Controls tailor audio level to match your voice. Built-in speaker and audio amplifier. Uses 9V battery, 9-15VDC or AC with optional adapter. 6.5"w x 2.5"h x 6.5"d **$169.99**



422D Keyer-Paddle Combo Keyer unit installs on top of Bencher iambic paddle. Uses Curtis™ chip. 9 to 50 wpm. Adjustable weight and tone, dot-dash memory and sidetone. Semi-automatic and tune or auto modes. Keys grid block, cathode or solid state. Uses 9V battery or AC adapter. 4.125"x2.625"x5.5"d **$159.99**

422DX Keyer only **$79.99**

490 Keyer/Bencher Paddle Combo A feature-rich keyer in a compact configuration that fits right on its own Bencher iambic paddle. Provides memories, morse trainer, sidetone, automatic serial numbering and more. 5"w x 3"h x 5.5"d. Uses 9-volt battery or 110 VAC with MFJ-1312D..... **$189.99**



492 Menu Driven Memory Keyer No complex sequences. Save messages, enter iambic, semi-auto, handkey, message queue, paddle modes. Select iambic A/B, Morse trainer, store starting serial numbers. Holds 192 characters in 4 memories (expand able to 8K+ characters in 8 memories. Front panel speed (5–100 WPM) and volume control for sidetone speaker. Direct and grid block keying. 9V battery or 110V AC adapter. 6.5" x 2.5" x 6.25" **$89.99**

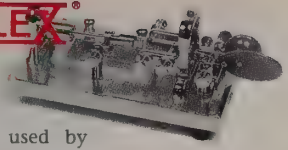
451 Morse Keyboard Stand-alone CW keyboard with 200 character type-ahead buffer, and two 100 character messages. Requires 12VDC..... **$99.99**

452 Morse Keyboard with 16 character LCD display. Comes with keyboard **$129.99**

495 Millennium CW Keyer A powerful keyer combining the latest microprocessor technology with non-volitile memory. Easy-to-use menus and LCD display – send CW, load messages and set functions using a paddle, keyboard or serial port. Iambic mode works with direct or grid-block outputs. • PTT output, built-in speaker, sidetone • Iambic keyer with dot and dash memories • 32 message memories • Repeat message continuously • Insert timed pauses, auto-incrementing serial number, or embedded commands to change speed, weight, etc. • Message editing capability • Input queue to store multiple messages • Digital and analog linear speed control • Farnsworth method with speed from 10 - 99 wpm • Type-ahead keyboard buffer • Dual user/configuration mode..... **$149.99**

AES
Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

VIBROPLEX®



The **Original Bug**, c. 1904, is still made using tools similar to those used by inventor Horace Martin. Designed for 20-50+ wpm.

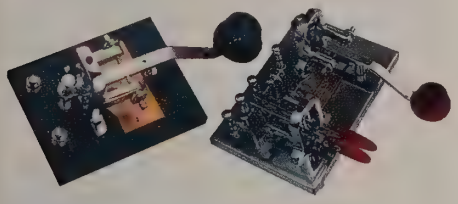
110 Standard Painted base/chrome top **$169.99**
105 Deluxe Polished chrome base and top parts with fine jewel movements **$199.99**
100 Presentation Polished chrome base and 24K gold-plated base plate and chrome top parts, fine jewel movements..... **$269.99**
090 Gold Gold-plated base, chrome top **$309.99**

Vibrokeyers: Single lever paddle *(left)* initiates automatic dots and dashes of an electronic keyer. Iambic model *(right)* allows automatic dot/dash insertion.

Vibrokeyer
120 Standard Black base, chrome parts. **$149.99**
115 Deluxe Chrome base and top parts with jeweled movements **$184.99**
113 Gold 24K gold-plated base and top parts with jeweled movements..... **$279.99**

Iambic
135 Standard..... **$149.99**
130 Deluxe **$189.99**
125 Presentation 24K gold-plated base and top parts with jeweled movements **$249.99**
123 Gold..... **$279.99**

145 Brass Racer Iambic *(left)* Solid brass Iambic paddle on a polished hardwood base **$139.99**
150 Square Brass Racer *(right)* Solid lacquered brass Iambic paddle mounted on a polished hardwood base. Magnetic action, no springs.. **$139.99**



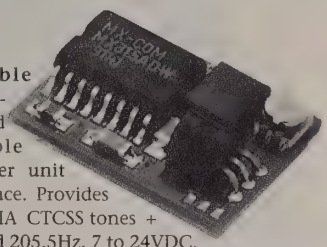
Straight Keys *(left)* Unique mechanical action; unlike any straight key ever manufactured.
155 Standard..... **$149.99**
160 Deluxe..... **$189.99**
153 Gold **$279.99**

Deluxe Double Keys *(right)* Choice of iambic and straight or vibrokeyer and straight key. Double keys allow you to instantly switch from using an electronic keyer to the personal touch of a straight key.
165 Straight key/Iambic..... **$329.99**
170 Straight key/Vibrokeyer..... **$329.99**

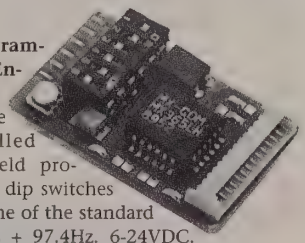
NORCOMM TONE SIGNALLING PRODUCTS

TONE SIGNALLING

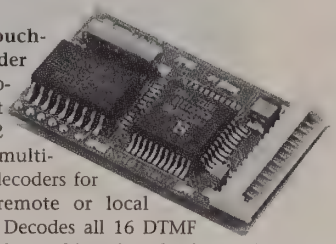
NC-101 Encoder Micro-mini. CTCSS encoder, field tunable to any of the CTCSS tone frequencies between 67Hz and 254Hz. 5 to 15VDC. 0.60"w x 0.80"l x 0.15"h ***NorFax™ #5040*** **$21.99**



NC-104 Programmable Encoder Sub-miniature field programmable CTCSS encoder unit for limited space. Provides standard 37 EIA CTCSS tones + 69.37, 97.4 and 205.5Hz. 7 to 24VDC. 0.625"w x 0.80"l x 0.170"d ***NorFax™ #5150***. **$26.99**



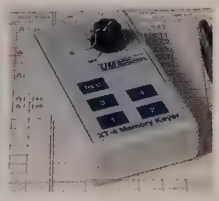
NC-106 Programmable CTCSS Encoder/Decoder A sub-miniature crystal-controlled digital unit. Field programmable with dip switches providing any one of the standard 37 CTCSS tones + 97.4Hz. 6-24VDC. 0.85"w x 1.35"l x 0.28"h ***NorFax™ #5230***.... **$62.99**



NC-401 Touch-Tone® Decoder Unique micro-mini unit combining 2 distinct multi-addressable decoders for control of remote or local applications. Decodes all 16 DTMF characters with an address length of 1-14 characters and features E²PROM memory for storage of both primary and secondary codes, input/output functions, deadbeat disable and user outputs, plus default reset. Programming easily performed by means of a conventional DTMF encoder. 6-24VDC. 0.80"w x 1.37"l x 0.23"h. ***NorFax™ #5545***..... **$62.99**

NorFax™ auto fax retrieval system – 530-477-8403

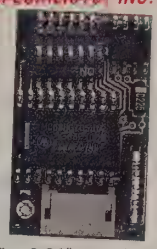
UM Unified Microsystems



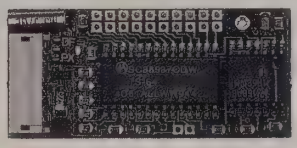
XT-4 CW Memory Keyer Designed for QRP, Field Day, mobile CW county hunting - any portable operation. Also goes well in the shack with smaller rigs. 8-45 WPM. **Memories:** 4 with 100 Morse characters each positive keying output only via RCA phono jack output. 1/8" (3.5mm) stereo jack input. Paddle reverse for left or right-hand operation. Auto power save mode w/flashing LED engages after 30 min. of inactivity. Requires 9V alkaline battery..... **$69.99**
KC-4 Cable set for XT-4..... **$9.99**

COMMUNICATIONS SPECIALISTS, INC.

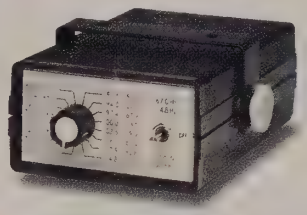
TONE ENCODERS & DECODERS



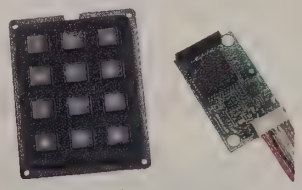
SS-64 Programmable CTCSS Encoder Super small for easy install in most HTs. Standard with 64 EIA tones between 33 and 254.1Hz. Individual tones dip-switch selectable 0.66" x 1.08" x 0.21", requires 6–28 VDC..... **$28.99**



TS-64DS Field programmable CTCSS Encoder-Decoder DIP switch programmable for 64 EIA tones 33-254.1Hz. 1.25" x 2", 0.3", 6–28 VDC..... **$57.99**

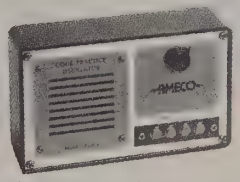


TE-32 Multi-tone Encoder Provides direct access from a front dial rotary switch to all EIA CTCSS tones from 67.0 to 203.5Hz, allowing users to access various repeaters. Great for mobile or test bench. 5.25" x 3.3" x 1.7", 6–30 VDC **$49.99**



ID-8 Multi-Featured Automatic Morse ID'er Programmable via 12-button pad • Eight changeable messages • 200 characters total • CW speed: 1-99 wpm • ID interval timing: 1-99 min. • ID hold-off timing: 0-99 seconds • CW tone: 100-3000Hz • 6-20VDC • 1.85" x 1.12" x .0.35" **$69.99**

Wiring diagrams and lists of *Fax-on Demand* documents can be obtained from **www.com-spec.com.**



AMECO

Combination Code Practice Oscillator and CW Monitor Volume control, 3" speaker, & headphone terminals. Requires a code key and a 9V battery **OCM-2K** *Kit* **$19.99** **OCM-2W** *Wired* **$24.99**

K-1 *(left)* Low-cost general purpose key w/phenolic base, adjustable tension, contact spacing.. **$10.95**
K-4 *(right)* Deluxe high quality key. Polished brass base, shorting bar **$16.95**

ASTRON CORPORATION

POWER SUPPLIES

• 105–125V AC input, 13.8V DC output; internally adjustable from 11–15V • Electronic regulation with fold-back current limiting and crowbar overvoltage protection • Heavy-duty heat sink • 3-wire cord • 1-year warranty • Made in U.S.A.

Separate volt and amp meters on RS-20M, 35M, 50M and 70M. Separate volt and amp meters, plus voltage adjustment (2–15V DC) on VS-20ML, VS-35M and VS-50M. RM-35M, RM-50M and RM-60M are rack mount models, plus separate meters.

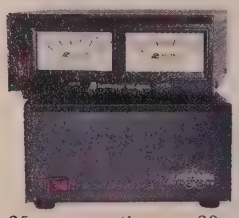
Model	Cont. Amps	ICS Amps	Size (in.) H W D	Shipping weight	Price
RS-7A	5	7	3.75 x 6.5 x 9	9	$59.99
RS-10A	7.5	10	4 x 7.5 x 10.75	11	69.99
RS-12A	9	12	4.5 x 8 x 10.75	13	79.99
RS-20A	16	20	5 x 9 x 10.5	18	99.99
RS-35A	25	35	5 x 11 x 11	27	149.99
RS-35A/220V	Same as RS-35A but 220V input				169.99
RS-50A	37	50	6 x 13.75 x 12	46	219.99
RS-70A	57	70	6 x 13.75 x 12	48	259.99
With separate Volt & Amp meters					
RS-20M	16	20	5 x 9 x 10.5	18	119.99
RS-35M	25	35	5 x 11 x 11	27	169.99
RS-50M	37	50	6 x 13.75 x 11	46	239.99
RS-70M	57	70	6 x 13.75 x 12	48	289.99
Adjustable output; separate Volt & Amp meters					
VS-20ML	16	20	5 x 9 x 10.5	20	139.99
VS-35M	25	35	5 x 11 x 11	29	189.99
VS-50M	37	50	6 x 13.75 x 11	46	259.99
Rack mount models; separate Volt & Amp meters					
RM-35M	25	35	5.25 x 19 x 12	38	249.99
RM-50M	37	50	5.25 x 19 x 12	50	279.99
RM-60M	50	55	7 x 19 x 12	60	359.99

POWER SUPPLIES WITH ADDED FEATURES

RS-4L Has a built-in cigarette lighter receptacle in the front panel. 13VDC @ 4A peak, 3 Amps continuous. 3.5"h x 6.5"w x 4.25"d, 6 lbs **$49.99**

RS-12S With built-in speaker. Rated 13VDC @ 12A peak, 9A contin. 4.5"h x 8"w x 9"d, 13 lbs **$89.99**

SWITCHING POWER SUPPLIES



SS-25 12V DC, rated 20A continuous, 25A ICS. 3"h x 7"w x 9.5"d, 4.2 lbs..... **$109.99**

SS-25M Same as above with volt and amp meters **$129.99**

SS-30 12V DC, rated 25 amps continuous, 30 amps ICS, 3.75"h x 7"w x 9.5"d, 4.5 lbs..... **$119.99**

SS-30M Same with volt/amp meters..... **$139.99**

POWER INVERTERS

12/115 General Purpose Converts 12V DC to 115VAC @ 60Hz. Provides convenient, mobile, AC house current (boat, car, truck, etc.). Powers a ham rig, small household appliance, TV, tools and lights up to 200W continuous (peaks up to 240W, overload protected). Produces square wave output, not recommended for devices where high transients are not tolerable. 4.5"h x 8"w x 9"d, 9 lbs **$69.99**

N2412-12 28V Aircraft Converts 22–32V DC input to 13.8V DC output @ 9 amps. Eliminates tapping into a 28V battery for 12V power..... **$49.99**

N2412-24 Same as above, rated at 16A .. **$79.99**

AIM

SMALL POWER SUPPLIES

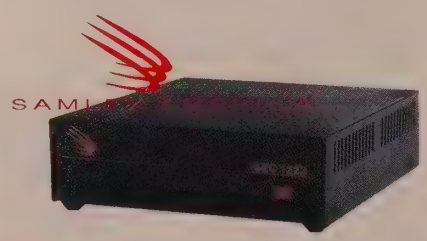
38-384 Light Duty DC Power Supply Input: 115 V AC • Output: 13.8V DC regulated @ 4A • Front panel binding posts, • LED "ON" indicator, fuse protection • 7.75"d x 4.75"w x 3"h, 5.5 lbs..... **$39.99**

38-305 AC Adapter *(left)* Provides multiple low-voltage DC to operate various battery powered equipment requiring 3, 4.5, 6, 7.5, 9 or 12V DC with a max. current rating of 500ma. Multiple application plugs and 9V snaps fit most devices **$9.99**

38-312 Regulated AC Adapter *(right)* Multi-voltage with multiple plugs and 9V snaps. Selectable 1.5, 3, 4.5, 6, 7.5, 9 or 12V DC regulated with a maximum current rating of 1200ma. to operate a wide range of battery operated devices..... **$29.99**

DIAMOND ANTENNA

GZV-4000 Switching Mode DC Power Supply with Built-in Speaker 120V AC input • Variable output: 5–15V DC with center detent at 13.5V DC • 40 amps continuous rating, 100% duty cycle • Over temperature, overload, short-circuit protection with current foldback at approximately 42 amps • Overload indicator • Selectable monitoring of voltage and current • DC terminals on rear • Cigarette lighter jack on front • Filtered AC line • 8.25" x 13" x 4.5", 8 lbs **$179.99**



SEC-1223 Low Cost, Base Station Power Supply for HF, UHF & VHF Transceivers Switching mode design • 23 Amp rating • Current limiting • Short circuit protection • Overvoltage protection • Anodized black chassis and powder coat wrinkle black steel cover • Input: 110-120VAC, 200-240VAC • 4.9A input current • 13.8VDC output voltage • 23 Amps output current (24 Amps maximum) • 3-year waranty • 7.2" x 8.7" x 2.2", 3.3 lbs **$99.99**

TRIPP LITE THE POWER PEOPLE

COMPACT INVERTERS

PowerVerter® Ultra These Low Cost DC to AC Inverters give you access to AC power wherever you need it. Harnessing the 12-volt battery power of your automobile, boat, RV or service truck, they let you use power tools at an out-of-the-way work site, household appliances at a campsite, or office equipment on the road.

Features: • Converts vehicle battery power to clean, safe and efficient AC power • Ultra compact design • Choice of 140w or 300w models • Plugs into vehicle cigarette-lighter socket (includes plug) • Electronic circuit protection • Low battery alarm and shutdown • Illuminated on/off switch • Metal housing • Built-in high-speed cooling fan (PV-300)

PV-140 Offers 140W maximum continuous power and 200W surge capacity (peak power). This model has a modified sine wave and one AC receptacle. 6"l x 3"w x 1.5"d, 1 lb. 4 oz..... **$42.99**

PV-300 This model is designed to deliver 300W maximum continuous power and 500W of surge capacity. It also offers a modified sine wave and two AC receptacles. 6"l x 4"w x 1.75"d, 2 lbs ... **$65.99**

SURGE SUPPRESSORS

SUPER-7 For spike suppression and noise filtering, 18,000 amp surge suppression, and RFI/ EMI filtering. Seven outlets, 7-foot cord, three diagnostic LED indicators **$19.99**

SUPER-7+TEL Same as above with 6 outlets and fax/modem protection for modular jacks.. **$29.99**

ISOBAR-8 ULTRA Premium Surge Protector Rugged all metal housing – won't break or burn • Isolated filter banks to eliminate interference between connected equipment • Massive 1,200 joule, 96,000 amp spike supression • Diagnostic alarm system indicates wiring faults, protection circuitry and power line status • 8 outlets, extra long 12' cord..... **$79.99**

Service Questions?
414-358-4087
Milwaukee, WI

MFJ Switching Power Supplies

Power your HF transceiver, 6 meter/2 meter/440 MHz Mobile/Base and accessories with these 25 or 45 Amp MFJ MightyLite™ Switching Power Supplies!

No RF hash . . . Super lightweight . . . Super small . . . Volt/Amp Meters . . .

4125

4225MV

4245MV

Small & Lightweight – *MightyLites™* are so light and small you can carry them in the palm of your hand! Take them with you anywhere – no more hauling around heavy, bulky supplies.

Lightweight – The 25A *MightyLite™* only weighs 3.7 pounds – *5 times lighter* than an equivalent conventional power supply. And, the 45A model weighs just 5.5 pounds!

No RF hash – Some switching power supplies generate objectionable RF hash in your transmitted and received signal. But, these babies are clean!

Low Ripple and Highly Regulated – Less than 35 mV peak-to-peak ripple and better than 1.5% regulation under full load.

Fully Protected – You won't burn up these power supplies! They are fully protected with overvoltage and overcurrent protection circuits.

Worldwide Versatility – Switchable AC input voltage for 85-135 or 170-260VAC.

Mighty Features – Model **4225MV** and **4245MV** feature a front-panel voltage control which varies output voltage from 9 to 15VDC. Front-panel mounted 5-way Heavy Duty binding posts and cigarette lighter socket for mobile accessories. The **4245MV** has two sets of quick-connects on the rear for accessories. Dual three inch illuminated meters monitor load voltage and current. Internal fan.

Three models to choose from . . .

4125 (left) Basic, no metering. 25A maximum or 22A continuous. Size: 5-1/2 x 2-1/2 x 2-1/2 inches, 3.5 pounds **$99.99**

4225MV (center) 25A max. or 22A continuous. Size: 5-3/4 x 4-1/2 x 6 in., 3.7 lbs **$139.99**

4245MV (right) 45A max. or 40A continuous. Size: 7-1/2 x 4-3/4 x 9 in., 5.5 lbs **$189.99**

4103 Miniature Switching Power Supply – Delivers up to 40W (13.8 VDC @ 2.89A), RFI and Hash FREE. Only 4-1/8 x 2-5/8 x 1-3/8 in., weighs 10 oz. Ideal for the FT-817 and other QRP rigs. Input: 100-240 VAC @ 47–63 Hz. Over voltage, over current, and over temperature protected. Includes a DC output cable with a 2.1mm x 5.5mm plug that fits most MFJ, other ham accessories and QRP rigs. Adapter cable for the Yaesu FT-817 is included **$39.99**

MFJ 35/30 Amp Adjustable Regulated DC Power Supply

Massive 19.2 pound transformer . . . No RF hash . . . Adjustable 1 to 14 VDC . . .

Super Heavy Duty – This conventional power supply is excellent for powering all types of amateur transceivers and accessories. A massive 19.2 pound transformer allows this power supply to easily deliver 35A maximum and 30A continuous. It's highly regulated with load regulation better than 1% and ripple voltage less than 30 mV.

Fully protected – Over voltage, fold back and short circuit protection. A whisper quiet fan keeps components cool by increasing speed as load increases.

Adjustable Voltage – Front panel control allows adjustment from 1 to 14 VDC with a convenient detent set at 13.8V. Dual front-panel meters monitor voltage and current.

Versatile – There are three sets of output terminals including a pair of Heavy Duty, 5-way binding posts for transceivers, two pairs of quick-connects for accessories and a cigarette lighter socket for mobile accessories.

Size – 9-1/2 x 6 x 9-3/4 inches, 20.6 lbs.

MFJ's *No Matter What*™ One Year limited Warranty

MFJ will repair or replace (at MFJ's option) these products for 1 year.

4035MV **$139.99**

MFJ High Current Multiple DC Power Outlets

Distribute power to transceivers and 6 or more accessories from your 12 VDC power supply

1118 Deluxe Multiple DC Power Outlet – The most versatile and highest current rating. Connect to a 12VDC source and distribute power to 2 transceivers and 6 or more accessories. Features 2 pairs of Super Heavy Duty 30A, 5-way binding posts, fused RF bypassed and rated 35A total draw. And, 6 pairs of 5-way binding posts for accessories rated for 15A total draw. Master fuse, On-Off switch with power LED. Built-in 0-25 VDC voltmeter, 6 ft. of 8-gauge, color-coded cable with ring tongue terminals. Binding posts are spaced for standard dual banana plugs. Size: 12.5" x 2.75" x 2.5"..... **$74.99**

1116 Similar to the 1118 but does not have 30A posts. Has "Power On" LED and 0-25 VDC voltmeter. Rated at 15A total draw **$49.99**

1117 Similar to the 1118 but no meter, power LED or On-Off switch. Powers up to 4 radios at the same time. Two 35A single posts and one 35A dual post. Size: 8 x 2 x 3 in., fits almost anywhere **$54.99**

1112 Similar to the 1116 but no On-Off switch, power LED, voltmeter or fuse **$34.99**

www.mfjenterprises.com

We accept I.M.P.A.C.® Government Credit Cards

MIRAGE

DOCKING BOOSTERS

Slide your handheld into a Mirage docking booster and it instantly becomes a powerful mobile or base! Mirage docking boosters have selectable HT voltages that let you use most handhelds. Place it on your dashboard or desk, or use mounting bracket mount for security and conveniece with tilt. • Boost your mobile or base station levels, up to 50W • Replace your HT battery • Becomes a secure and convenient HT holder • Requires 13.8 VDC

B-24-G For 2m FM Handhelds Up to 50W output with 0.5–8W input • 18dB GaAsFET preamp with on/off switch • LEDs show preamp on, on air, and transmit • 4.25"h x 3.35"w x 3.25"d • HT adapters available, see Price Guide..... **$114.99**

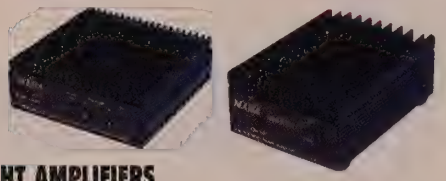
BD-25 For 2M/440MHz FM HTs Up to 45W (2M) & 35W (440MHz) with 0.5-8W input • Full duplex feature lets you simultaneously talk on one band and listen on another with a compatible HT • Auto band selection • LEDs show band and power-on • Reverse polarity protection • 5.25"hx 3.25"w x 3.35"d • HT adapters available, see Price Guide..... **$164.99**

MAHA

DOCKING BOOSTERS

With the appropriate adapter, you can slide on and boost your ICOM, KENWOOD or YAESU handheld radio up to 50W. Forget about the battery pack, the booster will power the HT at 5W. Also works with ADI products.

MH-A301 2m FM 5W in/50W out, 18dB GaAsFET preamplifier..... Closeout **$115.99**



HT AMPLIFIERS

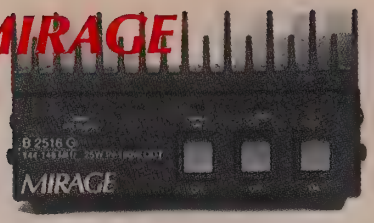
MH-A101 2m FM, 5W in/35W out.. C/O **$59.99**

MH-A102 2m FM/SSB, 5W in/35W out, 15dB GaAsFET preamplifier..... Closeout **$69.99**

MH-A103 2m FM/SSB, 5W in/50W out, 15dB GaAsFET preamplifier ..... Closeout **$119.99**

MH-A201 Dual Bander 2m 5W in/45W out; 440MHz 5Win/35W out ..... Closeout **$119.99**

MIRAGE



VHF/UHF AMPLIFIERS

15 to 300 watts of brute power! Models for 6M–70 cm, base, mobile, repeater or ATV operation • 12V DC • FM (SSB/CW on some models) • 20dB gain GaAsFET preamplifier • Overdrive and high temperature protection • Remote control capability

Model	MHz	Max Input	Max Output	Amps	Pre-amp	Price
A-1015G	50-52	1-15W	150W	23	yes	$349.99
B-34	144-148	8W	35W	4	no	69.99
B-34G	144-148	8W	35W	4	yes	89.99
B-215G	144-148	0.25-5W	150W	20	yes	C/O 299.99
B-1018G	144-148	0.2-15W	160W	25	yes	369.99
B-2518G	144-148	20-35W	160W	25	yes	299.99
B-2530G	144-148	10-35W	300W	48	yes	689.99
B-5018G	144-148	20-60W	160W	22	yes	299.99
B-5030G	144-148	0.5-50W	300W	48	yes	669.99
B-310G	144-148	0.25-8W	100W	15	yes	179.99
B-320G	144-148	2.5-50W	200W	25	yes	429.99
BD-35	144/440	1-7W	45/35W	7	no	149.99
C-22G	222-225	2W	20W	5	yes	154.99
C-211G	222-225	2W	110W	20	yes	329.99
C-1012G	222-225	10W	120W	25	yes	329.99
C-1022G	222-225	10W	220W	20*	yes	689.99
C-2512G	222-225	30W	120W	25	yes	309.99
D-15N	425-450	2W	15W	3	no	169.99
D-26N	430-450	2W	60W	12	no	259.99
D-1010N	430-450	10W	100W	15	no	379.99
D-3010N	430-450	30W	100W	20	no	349.99
D-1010ATVN	430ATV	10W	100W	20	no	399.99

N = Type-N connectors *at 28VDC

RC-1 Remote Control Head For most Mirage amps. Power/preamp On/Off, SSB/FM mode switch. 18" cable. 1.25h" x 3.75"w x 2.25"d **$45.99**

RC-2 Remote Control Head Same as the RC-1 but works only with the Mirage B1018G, B2518G and B5018G amplifiers **$45.99**

SGC

SG-500 (52-96) SmartPower Cube™ Fully automatic band switching, microprocessor-controlled, HF linear amplifier. Ideal for fixed, mobile, and marine operation. Nearly indestructible! Cast-aluminum enclosure, extra heavy duty heat sinks, powder coat finish and durable electronic components. Microprocessor auto adjusts amp input sensitivity, monitors all parameters for faults (heat, VSWR, undervoltage, etc.) and auto selects the correct broadband filter. Operates unattended! • 1.6–24MHz • 500W PEP with 50-90W input • CW rating: 500W output for 10 min., or unlimited with optional fan • 10–18 VDC @ 40A average (SSB), 90A peak, or CW • 6"h x 12.25"d x 11.4"w, 21 lbs **$1249.99**

TE SYSTEMS

RF POWER AMPLIFIERS

Linear all-mode operation with auto T/R or PTT switching & adjustable relay delay control. • 13.8V DC • SSB, FM or CW operation • Receive GaAs FET low-noise preamp with 18dbm 3rd-order intercept point for weak signal reception and improved strong signal intermodulation rejection • Excellent electrical and mechanical construction integrity. All RF and DC cables attached out of sight on rear panel • Thermal shut-down protection • 3"h x 10"w x 11"d, except 1410G, 2212G and 4412G (3"h x 6"w x 11"d) • UHF connectors, except 4452G (type-N).

TE Model	Freq MHz	In (W)	Out (W)	Amps @13.8V	Preamp NF/Gain	Price
6-meters						
0510G	50-54	10	170	25	.7/15	$319.99
0552G	50-54	20-25	375	54	.7/15	486.99
2-meters						
1410G	144-148	5-10	160	27	.7/15	328.99
1412G	144-148	25-45	160	22	.7/15	286.99
1452G	144-148	10-25	350	52	7/15	525.99
3/4-meter						
2212G	222-225	25-45	130	16	.8/14	316.99
70 cm						
4412G	420-450	15-30	100	19	1.2/12	355.99
4452G	420-450	25	185	30	1.2/12	547.99

PW-1 HF + 50MHz Solid State Linear Amplifier Frequency range: 160-15m, 6m • Power output with 220V input: 1000 PEP SSB, 1000W CW/RTTY (100% duty cycle, QSK) • 100W drive • Built-in all band automatic antenna tuner • Automatic AC voltage selector and band change • Current, voltage, temperature, SWR, output power protectors • Wide range adjustable ALC allows use with almost any rig • Control head may be detached from main unit (shown) • Built-in 110/220VAC supply • 14"w x 10.5"h x 14.5"d, 56 lbs..... **$4699.99**

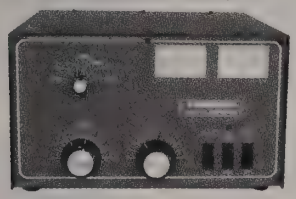
YAESU

QUADRA SYSTEM HF/50MHz Solid-State Amp Frequency range: 160-15m, 6m • 1000W (6m: 500W) • 100W drive • 4 twin MOSFET PA modules • Dot matrix multi-function LCD • 2 input and 4 output jacks for easy connection to station antenna • Built-in high-speed auto antenna tuner • Panoramic SWR display shows "before tuning" and "after tuning" SWR data • SWR protection • Automatic band switching with FT-1000, FT-1000MP, FT-1000MP MK V, and FT-920 • 117VAC for 500W; 220V AC for 1000W • 6.25" x 5.375" x 16.25", 59 lbs. **$3999.99**

AMERITRON

811A Amplifiers

- Cover 16-15M, including WARC/MARS bands
  User Modifiable for 10/12M with proper license
- All Modes
- HD silicon steel core Plate Transformer (17 lbs.)
- Tuned Input • ALC Control • Quiet Air Cooling
- Dual Meters show Plate Voltage, Grid and Plate Current • Vernier Reduction tuning
- Comes wired for 120V Operation
- Size: 15.5"d x 13-3/4"w 8.25"h, 52 lbs.

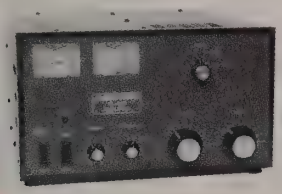


AL-811 – Uses (3) 811A transmitting tubes. Delivers 600W PEP output SSB and 500W CW..... **$599.99**

AL-811H – Uses (4) 811A transmitting tubes. Delivers 800W PEP SSB or 600W CW **$749.99**

3-500Z Amplifier

- Covers 16-15M, including WARC bands.
  User modifiable for 10/12M with proper license
- HD silicone steel core Plate Transformer (26 lb) and Computer Grade capacitors
- A Full KW PEP! (70% efficiency)
- Tuned Input • Adjustable ALC • Air Cooled
- Dual Cross-needle meters show SWR, Refl. PEP power, Plate voltage, Grid and Plate current
- Operates from 90-140 VAC or 205-250 VAC
- Size: 15-1/2"d x 14-1/2"w x 18-1/2"h, 48 lbs.



AL-80B – Uses a single 3-500Z transmitting tube. Delivers 1000W PEP output SSB and 850W CW. The high-voltage secondary can be wired to reduce plate voltage for efficient operation below 400W for use outside the USA **$1199.99**

Solid State Mobile Amplifier

ALS-500M – Uses (4) 2SC2879 RF power transistors. The ideal amplifier to increase your HF mobile up to 500 Watts. Continuous coverage 1.5–22 MHz* with instant bandswitching, no tuning, no warm-up and SWR protected. Runs nicely from 13.8 VDC mobile electrical system, draws 75A peak current. Size: 3-1/2 x 9 x 15 inches, 5-1/2 lbs. **$699.99**

Solid State Base Amplifier

ALS-600 – No tuning, no fuss, no worries – just turn it on and operate. Continuous coverage 1.5-22MHz*, instant bandswitching, SWR and over power protected. Full 600W output, includes AC power supply. Extremely quiet, very compact. Amplifier and power supply both 6" x 9-1/2 x 12 inches, 30 lbs., total..... **$1129.99**

**Modification kit (MOD-10M) for 10/12M operation is available direct from Ameritron*

www.mfjenterprises.com

3CX-800A7 Amplifiers

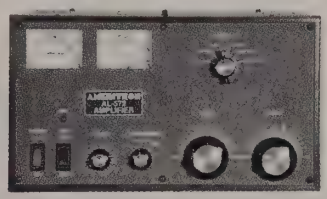
- Cover 16-15M, including WARC bands.
  User Modifiable for 10/12M with proper license
- HD silicon steel core Plate Transformer (32 lb.)
- Tuned Input • ALC Control • Air Cooled
- Dual illuminated Cross-Needle meters show SWR, Plate voltage, Grid and Plate current
- Operates on 90-140 VAC, 200-250 VAC
- Size: 8-1/2"h x 16-1/2"w x 13-3/4"d, 52 lbs.

AL-800 – Uses as a single *Eimac*® 3CX800A7 tube. Delivers 1250W PEP SSB output.....**$1629.99**

AL-800H Uses (2) *Eimac*® 3CX800A7 tubes. Delivers 1500W PEP SSB output.....**$2399.99**

572B Amplifier

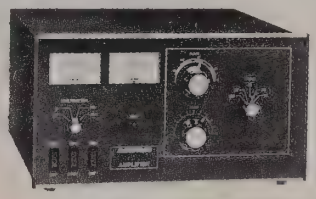
- Covers 16-15M, including WARC bands
  User modifiable for 10/12M with proper license
- Heavy Duty silicone steel core Plate Transformer
- Instant 3 second warm up
- Tuned Input • ALC Control • Air Cooled
- Dual illuminated Cross-needle meters show SWR, Plate voltage, Grid and Plate current
- Multi-voltage Operation
- Size: 8-1/2"h x 15-1/2"w x 14-1/2"d, 40 lbs



AL-572 This *Near Legal Limit*™ amplifier uses (4) rugged 572B tubes. Delivers 1300W PEP SSB and 1000W CW continuous output for about 65% of the price a full legal limit amplifier..... **$1299.99**

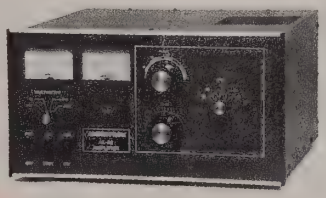
Super Legal Limit Amplifiers

- Cover 16-15M, including WARC bands.
  User modifiable for 10/12M with license
- Strong Stainless Steel Chassis
- Highly efficient *PeterDahl* tape wound Hypersil® Plate Transformer, capable of 2500W
- Grid and Plate meters show drive, ALC, Power output and PEP Watts
- Size: 18"h x 17"w x 10"d, approx. 77 lbs.



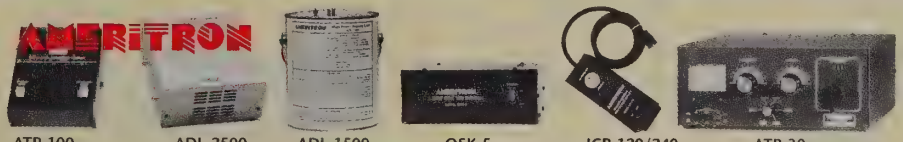
AL-1500 – Uses a single *Eimac*® 8877 Ceramic tube. Only 65W of drive power delivers full legal 1500W CW output. Time-delayed start protects the tube and over-current shut-off removes the drive if amplifier is mistuned..... **$2599.99**

AL-1200 – Uses Ham radio's toughest tube, the *Eimac*® 3CX1200A7. It has a 50W control grid dissipation and can deliver more than 2500W two-tone output for a half hour **$2199.99**



AL-82 – Uses a pair of 3-500Z tubes. Delivers 1500W output which is more than other 3-500Z linears because their lighter weight power supplies can't use these tubes to their full potential **$2099.99**

We accept I.M.P.A.C.® Government Credit Cards



ATP-100 ADL-2500 ADL-1500 QSK-5 ICP-120/240 ATR-30

ACCESSORIES

ATP-100
Tuning Pulser – Safely tune up RF power amplifiers. Prevents overheating, tube damage, power supply stress and component failure **$49.99**

ADL-2500
Dry Dummy load – Rated 2500W average power for 1 minute on, 10 minutes off, 300W continous. Air cooled, low VSWR up to 60MHz **$189.99**

ADL-1500
Oil Filled Dummy Load – Handles 1500W for 5 minutes. Usable with low VSWR up to 400 MHz. Includes oil and container as pictured **$69.99**

QSK-5
Pin diode T/R Switch – Faster than a vacuum relay. Connects externally to HF RF power amplifiers. Handles 2.5KW PEP, 2 KW CW **$329.99**

ICP-120/240
In-rush Current Protector – Stops power-up in-rush current surge and absorbs momentary voltage spikes. ICP-120 for 110-120V; ICP-240 for 220-240V ..... each **$79.99**

ATR-30
1500W Antenna Tuner – Tune nearly any antenna system 1.8–30MHz. Rugged, heavy duty components, edge wound, silver-plated roller inductor. Cross-needle meter..... **$549.99**

RCS-8V
Remote Coax Switch – Selects one of five outputs using one feedline and 6-wire control cable. Rated 1KW @ 150MHz, usable to 250 MHz **$139.99**

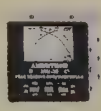
RCS-4
Remote Coax Switch – Selects one of four outputs by supplying control voltages thru the coaxial cable Rated 1500W from 1.8 to 30MHz.. **$129.99**

ARB-704 RCS-4

ARB-704
Interface Buffer – Prevents damage to radio's internal relay contacts resulting from keying amplifiers with too much control voltage, excessive current or voltage spikes on the relay control line. Compatible with transceivers that provide a ground on transmit. Interface cables optional, requires 12VDC **$49.99**

ARB-704I2 for IC-706 only ... **$49.99**

AWM-30
SWR/Wattmeter – Uses a Cross-needle meter that reads Peak or Average on 300W/3KW ranges up to 30MHz..... **$139.99**



MIRAGE Power Amplifiers

Boost Mobile, Base or Handheld Power!

All Modes: FM, SSB, CW . . . Superb GaAs FET preamplifier in G Models
Overdrive, high SWR, Over-temperature protection . . . Remote controllable

2 Meters All Mode 160W • 200W 300W

B-5018G 160W output with 50W input. Requires 17 to 24 amps @ 13.8VDC. Low Noise GaAsFET Preamplifier. 5-1/2"w x 3"h x 12"d..... **$299.99**

Power Curve – typical for the B-5018-G									
IN	0.5	5	8	10	15	20	25	35	50
OUT	---	52	99	119	125	130	135	145	160

B-2518G 160W output with 25W input. Low noise GaAs FET preamplifier. Requires 17 to 24 Amps @ 13.8VDC. 5-1/2"w x 3"h x 12"d.. **$299.99**

Power Curve – typical for the B-2518-G									
IN	0.5	5	8	10	15	20	25	---	---
OUT	5	56	91	111	135	153	160	---	---

B-1018G 160W output with 10W input. Low noise GaAsFET preamplier. Requires 17 to 24 Amps @ 13.8VDC. 5-1/2"w x 3"h x 12"d..... **$369.99**

Power Curve – typical for the B-1018G									
IN	0.5	5	8	10	---	---	---	---	---
OUT	30	150	155	160	---	---	---	---	---

B-2530G 300W output with 25W input. Low noise GaAsFET preamplier. Requires 48 amps @ 13.8VDC. Size: 12"w x 5"h x 12"d..... **$689.99**

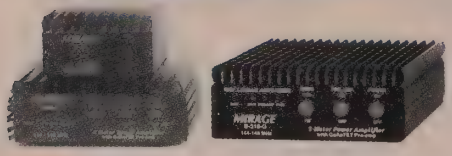
Power Curve – typical for the B-2530G									
IN	1	3	5	10	25	---	---	---	---
OUT	30	95	140	250	300	---	---	---	---

B-5030G 300W output with 50W input. Low noise GaAsFET preamplier. Requires 48 amps @ 13.8VDC. Size: 12"w x 5"h x 12"d..... **$669.99**

Power Curve – typical for the B-2530G									
IN	1	3	5	10	25	50	---	---	---
OUT	---	---	55	150	220	300	---	---	---

B-320G Up to 200W output. Low power input for Handheld Radios 250mW to 10W. High power input for mobile radios, 10W to 50W. Low noise GaAS FET preamplifier. **$429.99**

35W/100W for your HT



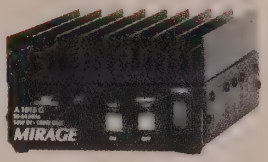
B-34G (left/bottom) Boosts 2M HTs with up to 8W output to 35W+ output. SSB/FM. GaAsFET preamp and mobile bracket. 13.8 VDC @ 4A..... **$89.99**

B-34 (left/top) Like B-34G but FM only, no preamp or mobile bracket. 3-1/8" x 1-3/4" x 4-1/4".. **$69.99**

B-310G (right) Boosts 0.25 to 8W 2M Handhelds to 25 to 100W+ output. Includes mobile mounting bracket and BNC to amplifier patch cable. 13.8 VDC @15A. 4-3/4"w x 1-3/4"h x 7-1/4"d..... **$179.99**

Power Curve – typical for the B-310G									
IN	.25	0.5	1	2	4	6	7	8	---
OUT	25	50	75	95	100	100	100+	100+	---

6 Meters All Mode 150W



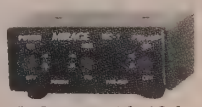
A-1015G Covers 50 to 52MHz and provides 150W output with 10W input; FM/SSB/CW. Built-in Low Noise GaAsFET receive preamplifier, internal T/R switching and remote keying. 13.8 VDC @ 18-23 Amps. 5-1/2"w x 3"h x 12"d., 5 lbs **$349.99**

2M/440 Dual Band 35/45W

BD-35 For DUAL-BAND HTs with up to 7W output. Produces up to 45W output on 2M and 35W on 440 MHz. Automatic band selection, full duplex operation. Single connector for dual band radios and antennas. 12-15 VDC @ 7A. Size: 5"w x 1-3/4"h x 5"d. Mobile bracket included..... **$149.99**

Power Curves – typical BD-35 output power								
Watts Out (2M)	30	40	45	45+	45+	45+	45+	45+
Watts Out (440 MHz)	16	26	32	35+	35+	35+	35+	35+
Watts In	1	2	3	4	5	6	7	8

REMOTE CONTROL HEADS



RC-1 – Allows remote control of Mirage amplifier functions: Power and preamp On-Off, FM/SSB mode select. Only 1.75" x 3.75" x 2.5". Comes with 18 ft. head to amplifier control cable. **$45.99**

RC-2 for B-XX18G series amplifiers..... **$45.99**

More MIRAGE amps...

including models for 220MHz, 430-440MHz. Also, continuous duty Repeater Amplifiers for 6, 2, 1-1/4 meters, 70 cm, 450 MHz & ATV.

See the Price Guide under MIRAGE

Low Noise GaAsFET Receive Preamps

- Improves weak signal reception
- <0.8 dB Noise Figure
- 15–22 dB gain with selectable level prevents receiver overload and intermodulation
- Automatic TR switching up to 100W thru put
- Rugged die-cast enclosures
- In-Shack or Mast-Mount models

In-Shack Models – $129.99 ea.

KP-1/10M for 28-30MHz **KP-1/6M** 50-54MHz
KP-1/2M 144-148MHz **KP-1/220** 220-225MHz
KP-1/440 430-450MHz

Mast Mount Models – $179.99 ea.

KP-2/6M for 50-54MHz **KP-2/2M** 144-148MHz
KP-2/220 220-225MHz **KP-2/440** 430-450MHz
KP-2/10M 28-30MHz – Closeout **$139.99**

MFJ DC Power for your MIRAGE Amplifier

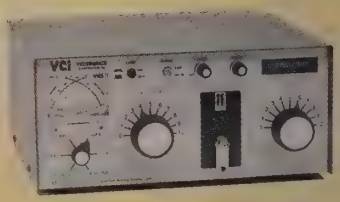
4035MV Heavy Duty - the transformer alone weighs 19.2 lbs! Voltage front panel adjustable 0–15 Volts. Dual meters show Volts and Amps. Rated 30A continuous, and 35A peak. Fully regulated and fully overload protected. 110 VAC..... **$139.99**

VECTRONICS

. . . fine amateur radio products

Versatile 300W Antenna Tuner

VC-300DLP Match any antenna • Full 1.8-30 MHz coverage • Rated 300W PEP, 200W continuous; 150W on 1.8 MHz • Continuous rotation capacitors and 12-position switched inductor • Peak reading backlit Cross-Needle Meter • Built-in 8-position antenna switch and dummy load 10-1/4"w x 9-1/2"d x 3-1/2"h, 3.4 lbs **$149.99**



High Power Roller Inductor Tuner

HFT-1500 Match any antenna Full 1.8-30MHz coverage • Rated 2KW PEP, 1KW continuous • Three continuously variable components: two 4.5kV capacitors and a crank driven a roller inductor with digital counter • Lighted Cross-Needle SWR/Wattmeter and 20-segment Digital Bargraph • Built-in 6-position coax switch and 4:1 balun • 5-1/2"h x 12-1/2"w x 12"d, 10 lbs..... **$399.99**

More Vectronics Amateur Products

AT-100 Tuned active SWL antenna **$79.99**
CK-200 Deluxe CW keyer **$79.99**
DL-300M 300W dry dummy load..... **$44.99**
DL-650M 1500W dry dummy load..... **$74.99**
DL-2500 2500W dry dummy fan **$179.99**
VC-300M 300W mobile tuner..... **$99.99**
VC-300D 300W tuner w/digital bargraph.. **$179.99**
HPF-1 75/300Ω High pass TVI filter **$24.99**
HPF-2 Dlx. 75/300Ω High Pass TVI filter.. **$29.99**
PM-30HF 1.8-60 MHz SWR/Wattmeter **$79.99**
PM-30UV 144/220/440MHz SWR/Wattmeter **$89.99**
LP-30 1500W Low Pass filter..... **$69.99**
LP-2500 Low Pass Filter, 2500 Watts..... **$129.99**

See the Price Guide for a list of Vectronics Kits

KOSS stereophones

KTX/4 Lightweight, Portable Stereophone *(left)* Frequency response: 40-20,000Hz • Collapsible design for easy storage and portability • Straight, dual entry, 4' cord with 3.5/6.4mm stereo plug • Volume control on the cord for easy level adjustment • Sensitivity: 95dB SPL/1mW • Impedance: 32Ω • 2 oz..... **$14.99**

QZ/99 Passive Noise Reduction Stereophone with Mono/Stereo Switch *(right)* Frequency response: 40-20,000Hz • Coiled, single entry, 8' cord with 3.5mm/6.4mm plug • Sensitivity: 102dB SPL/1mW • Impedance: 60 Ω • 15 oz..... **$59.99**

QZ/2000 Noise Reduction Stereophone Revolutionary Active Noise Reduction system reduces harmful/annoying low frequency sounds in noisy places • >15dB SPL from 40-200Hz; average of 10dB SPL from 30-1000Hz • Frequency response: 15-20,000Hz • Straight, dual entry, 4' cord • Compact control case and collapsible stereophone • Adjustable headband • Input jack for audio play-through and 2-prong adapter for in-flight use • Sensitivity: 101dB SPL/1mW • Impedance: 5kΩ • Includes 2 "AA" batteries • 2.3 oz..... **$179.99**

ASTATIC

SILVER EAGLE D-104 Mic, Final Addition Few products in U.S. history have achieved the renowned status of the Silver Eagle. From lollipop design to time-honored break-thru sound, the D-104 has pleased communication enthusiasts for 8 decades. Includes collector's case, certificate of authenticity, engraved serial number, and name plate..... Closeout **$199.99**

Secure
www.aesham.com

PREMIER communications

SPM-100 Small Speaker/Mic This is a lightweight, compact unit. The microphone features a high-quality condenser-style mic element and high-fidelity audio circuit that produces excellent transmitted audio clarity, as well as a powerful speaker. It may be secured to the user's lapel or shoulder..... **$21.99**

SPM-400A Mini Boom Mics The SPM-400A headsets include an in-the-ear speaker and a rubber-covered earloop design that adjusts to comfortably fit either the right or left ear of any user. The unit features an in-line Push-To-Talk switch that can be clipped to the user's lapel or belt **$34.99**

SPM-500 Throat Mic/Earphone The SPM-500 throat microphone is the answer to high noise environments. Our SPM-500 rests comfortably against the user's throat, picking up audio directly from vocal cords. This provides outstanding background noise suppression and surprising clarity..... **$19.99**

See the Price Guide to find correct model numbers for your specific brand of radio.

YAESU

Choice of the World's top DX'ers℠

MD-200A8X Ultra-High Fidelity Desktop Microphone Designed for base station use with the MARK V FT-1000MP. Employs a studio-quality, wide range (30-17000Hz) dynamic element optimized for High Fidelity SSB operation. An exclusive Variable Side Pressure Control (VSPC) allows user adjustment of the overall frequency response. Adjustable from a totally-flat, natural, high-fidelity sound for everyday S-9+ rag chewing; or high-articulation with a moderate peak above 1500Hz, for DX or Contests. • Aluminum die-cast base with locking and momentary PTT switches • UP/DOWN scanning switches • Bright red LED • Housing can accommodate the addition of a favorite DX or Contest microphone element • Also works with the FT-847, FT-920 and FT-1000MP (also with the FT-1000/FT-1000D, without "TX" LED operation) • Includes a dual-connector cable with regular and modular mic plugs • 4.7"w x 12.6"h x 4.9"d, 2.2 lbs **$379.99**

We accept I.M.P.A.C.® Government Credit Cards

KENWOOD

HS-5 Deluxe Headphones Specifically designed for use with communication systems. It provides natural sound and eliminates uncomfortable pressure feeling which permits long hours of fatigue free listening. To increase the volume level or when you are using the headphones in a noisy room or want privacy, replace the ear-pads with the vinyl leather ones. These are pressure-fit type ear-pads and will increase the sound pressure by about 10dB while sealing out noise. Both types are included. Includes 6 feet connecting cord with plug. Impedance: 8Ω • Maximum input: 200mW @ 1000Hz) • Frequency response: 150-4000Hz (-6dB) • Approx. 350g..... **$79.99**

MOTOROLA

HEADSET

53725 FRS Headset with Swivel Boom Mic Allows you to clearly hear messages from Motorola FRS units in high noise areas or in quiet environments without disturbing others. Transmit messages without removing radio from belt or case. Enjoy hands-free talk when used with a Voice Activated Transmission (VOX) capable TalkAbout..... **$14.99**

HF-24RS Headphones For Scanners Designed specifically for racing fans. • Adds to the excitment when using a scanner at the races • Listen in on driver–to–pit conversations with reduced noise • Snug fit, cushioned headband for wearing comfort • Comfort fit cushions let you hear the action over crowd and engine noise • Dual volume control to maximize hearing levels • Includes 3.5mm, Premium Gold, right-angle plug with a 10' coiled cord **$19.99**

SHURE®

526T SERIES II Super Punch® Transistorized Base Station Microphone Adjustable height, dynamic micrphone with built-in preamp and output level control. Designed to replace ceramic or dynamic, high or low impedance mics originally supplied with most equipment. The 200–6,000Hz frequency response provides optimum intelligibility. Comes with 6-wire cable and triple pole double-throw locking PTT for wide range of mic to transceiver connections. Includes 9V battery..... **$124.99**

GOLDLINE

FULL RANGE DUAL ELEMENT MICROPHONES

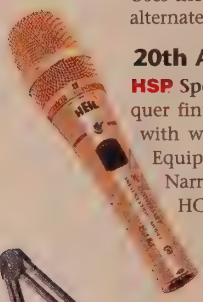
Provides full-range, smooth and articulate audio for AM, FM and "Hi-Fi" SSB. The wide 60 –16 kHz frequency response, with a +4 dB midrange peak @ 2 kHz, produces brilliant articulation which is so important for clear, understandable SSB audio, and adds a well-balanced and robust low end.

In addition, the GOLDLINE comes equipped with a second HC-4 or HC-5 element for *extra punch* when you need it.

The diecast body is finished in high lustre black lacquer and topped with a crushproof golden grill. A "wide-narrow" switch selects the second element, and a "soft touch" microswitch provides smooth, noise free PTT operation. Requires a CC-1 adapter cable.

GM-4 GOLDLINE with Full Range and HC-4 elements.... **$140.99**
GM-5 GOLDLINE with Full Range and HC-5 elements.... **$140.99**

GM-V "Vintage" GOLDLINE – A built-in matching transformer allows its use with older rigs like Collins, Hallicrafters, Johnson, etc. Uses the Full Range element and switchable Passive EQ circuit or an alternate narrow, more articulate response **$155.99**



20th ANNIVERSARY COMMEMORATIVE GOLDLINE

HSP Special Presentation Sports a gorgeous high gloss gold lacquer finish, laser engraved with a serial number (1-200). Comes with wooden case, laser engraved with the famous HEIL logo. Equipped with a single full-range broadcast element and Narrow/Wide switch, however it does not include the narrow HC element as in other Goldlines ... Special Order **$199.99**

BASE, BOOM/CLAMP ASSEMBLIES

LX-1 Professional Studio Boom by LUXO – The spring loaded arm is balanced for a 1 lb. microphone – reaches 41 in. "C" clamp mt, 5/8" x 27 thread.. **$95.99**

SB-1 Small Microphone Boom – Extends from 10 to 20 in. Clutch system and "C" clamp mount keeps the microphone in place under any conditions. **$33.99**

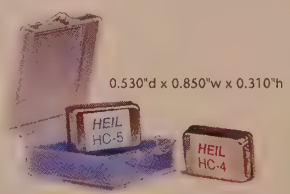
MA-1 Boom – Telescopes out to 30 in. and attaches to desk or shelf, or hangs from ceiling. Swivels a full 360° to place microphone right where you want it. You can use the FS-1 Footswitch or HS-1 Handswitch for PTT operation..... **$45.99**

TB-1 Table Base Mount – For HM-10, HM-i or GOLDLINE microphones. Heavy (2 lb-10 oz) cast metal base with non-skid cork feet, 6 inches high **$25.99**

SM-1 The Ultimate Shock Mount – Mounts on boom, 8-point flexible suspension supports and isolates GOLDLINE or HM's, reduces mechanical vibration **$50.99**

HIGH PERFORMANCE MICROPHONE ELEMENTS

For improved audio performance, replace the cartridge in your factory microphone with a *Heil*; the same elements used in their High-Performance microphones. Tiny in size, easily replaces existing cartridges in most microphones.



HC-5 – Full Range Articulation
Makes any rig sound better and more intelligible by providing full articulation and clarity. The response is 350–4000Hz, with a sharp roll-off under 300Hz and above 3100Hz, with a peak at 2100Hz. The result is very clear, easy-to-understand SSB audio for everyday communications that will get you lots of compliments..... **$30.99**

HC-4 – The "DX Dream Machine"
Super clarity with more punch for contest, DX and weak-signal VHF/UHF work. Outstanding results on aurora, backscatter, etc. Produces a high-pitched, pile-busting 500–3800Hz response with a 10dB peak @ 2000Hz, and a sharp 12dB per octave roll off @ 500Hz. It's a penetrating sound, not particularly pleasing for everyday rag chewing..... **$30.99**

HM-10/HM-10 Dual
STUDIO-STYLE MICROPHONES

Old favorites upgraded with a new body and PTT switch like the GOLDLINE. The **HM-10** comes with your choice of a HC-4 "DX Dream Machine" or HC-5 "Full Range Articulation" element.

The **HM-10 Dual** contains both the HC-5 "Full Range Articulation" element and HC-4 "DX Dream Machine" cartridges, switch selectable, giving you a choice for varying conditions. Both require CC-1 cable.

HM-10 with HC-4 or HC-5 ... ea.**$65.99**
HM-10-DUAL with HC-4 and HC-5 ... **$115.99**

HAND MICROPHONES

HMM Dual Element – Heavy duty, commercial quality. Contains an entirely new Full Range Dynamic element and a switch selectable HC-4 "DX" element. Internal noise canceling cavity greatly reduces background pick-up. The coiled cable is terminated with an 8-pin plug for KENWOOD or YAESU (specify) – not for ICOM. ea.**$78.99**

HMM-iC Single Element – Same as HMM, but contains the new HEIL Electret Condenser element designed specifically for outstanding performance with ICOM radios; no HC-4 or switch.....**$58.99**

the ICM
The answer for your pre-PRO ICOM rig...

A High Performance Electret Element that provides plenty of drive, great sound and plenty of punch for those older ICOMs with low-level inputs. Beautiful platinum finish, soft touch PTT switch. Has an attached 8-pin ICOM cable with jack for FS-1 or FS-2 foot switches or HS-1 hand switch. Fits all Heil booms and shock mounts..... **$89.99**

the CLASSIC
1930s Replica

A replica of the famous 1930 RCA 74B broadcast microphone. Quality, all metal construction. Rear switches for PTT and selecting the Heil Studio One or HC-5 element for more punch. Removable base for inverted boom mounting. Uses the Heil CC-1 cables. After purchase, order your call letters from Heil.....**HCL-5 $229.99**

Special Order HCL Models
HCL-4 with HC-4 DX element**$229.99**
HCL-ic with ic element..... **$229.99**
HCL-Z Hi-Z for older rigs **$249.99**

ADAPTER CABLES & SWITCHES

CC-1 Adapter cable – Required for the GOLDLINE, and HM's. Specify the cable with connectors to match Icom, Kenwood, Ten-Tec or Yaesu radios. The 6 ft. cable is also wired with a 1/4 in. female jack to accommodate the plug from a FS-1 Footswitch or HS-1 Pushbutton Hand Switch. (Specify radio)..... ea. **$30.99**

HS-1 Pushbutton Handswitch – Plugs into CC-1 jack for PTT control of your radio. A 6 ft. cable terminates into a 1/4" phone plug..... **$25.99**

FS-1 Footswitch – Plugs into CC-1 for "hands-free" PTT operation. Stays put with non-skid pads. A 6 ft. cable terminates into a 1/4" phone plug **$30.99**

FS-1M Footswitch – Has a modular connector to plug into the BACK of the IC-706. The Traveller or HMM-ic plugs into the front modular connector of the 706 and the FS-1M connects to the rear modular jack..... **$30.99**

FS-2 Dual Footswitch – Larger than the FS-1 and the hinge point is reversed and is under the heel for less operating fatigue. It has TWO large microswitches which activate in sequence and have separate cables with standard phone plugs ... **$38.99**

AD-100 Microphone/Boomset Adapter – Allows use of all HEIL products with the YAESU FT-100 series. Solves the problem of the multiplexed microphone, touch tone audio and control data appearing on the microphone line **$25.99**

HD-AT Headphone Attenuator/Adapter – Allows 1/4" headphone jacks to plug into a 1/8 in. jack. Contains a -6 dB pad which reduces output and allows use of HEIL headsets with FT-100 or IC-706 without overload and distortion..... **$5.99**

XT-1 Matching Transformer – This sub-miniature unit matches Low–Z microphones to High–Z inputs used in older Collins, Drake, Hallicrafters, etc..... **$15.99**

Heil Sound Headset/Boom Microphones

The Standard for leading Contesters and DXers Worldwide!

PRO-SETS – Rugged, lightweight boomsets designed for performance and comfort during extended wearing times. The padded, fully adjustable headband provides maximum comfort. Heavily padded vinyl earpads seal out noise, and are removable for washing. The flexible microphone boom is fully adjustable to your liking. Cables are wired with 1/4" stereo plug and 1/8" transmit audio plug and use a Heil AD-1 ($17.99) to conveniently adapt to various radios.

PRO-SET PLUS Maximum comfort and noise seal is provided by new full cover leatherette ear pads with removable cotton covers. The cushioned inner headband is self-adjusting for a perfect fit, and the boom swings 180° for left or right side operation. Includes switchable, dual microphone elements; the Heil HC-5 for normal operation, the HC-4 for DX. The boom and top headband have rugged but flexible internal steel bands, and can be adjusted as you wish without fear of breaking. Great sound from frequency tailored speakers mounted in tuned cavities, and a phase reversal switch changes the sound field. The audio changes from being heard "centered" in your head, to a spatially widened effect. This feature greatly reduces listening fatigue and in some conditions can reduce noise and enhance intelligibility **$189.99**

PRO-SET PLUS-IC Same, but for ICOM, has HC-4 and 'ic' elements and adapter cable **$206.99**

PRO-SET-4 Lightweight comfortable headset with flexible boom and HC-4 "DX" element. Uses the Heil AD-1 cable system for different radios **$130.99**

PRO-SET-5 Same, but with the HC-5 "Full Range" element **$130.99**

PRO-SET-IC Same, but for ICOM with 'ic' Electret element and adaptor cable **$99.99**

BM-10 Series Headset/Boom Microphones – featuring a lightweight (8 oz.), soft and comfortable headphone for prolonged use in contests, etc. The high performance boom microphone is available with the Heil HC-5 "Full Range" or HC-4 "DX"element. The cord is wired with 1/4" stereo plug and 1/8" transmit audio plug and uses a Heil AD-1 ($17.99) to adapt to various radios.

BM-10-4 with the HC-4 "DX" element **$89.99**

BM-10-5 with the HC-5 "Full Range" element **$89.99**

BM-10-iC Headset/Boom Microphone for ICOM only A special FET Electret element produces plenty of articulate audio for ICOM radios, includes adapter cable **$106.99**

BM-5 SERIES Same as the BM-10 but with a Single Headphone. Great for mobile!

BM-5-4 with HC-4 "DX" element **$69.99**

BM-5-5 with HC-5 "Full Range" element **$69.99**

BM-5-iC with new FET Electret Element for ICOM radios, with adapter **$86.99**

TRAVELLER Single-side Headset/Boom Microphone Features Up/Down and PTT in line switches and various 3 ft. interface cables which allows the Traveler to be used on virtually any transceiver. Lightweight and comfortable, and usable with left or right boom position.

Three models:

Traveler 817 for the FT-817–Includes the 817 patch cable

Traveler 706 for the IC-706) Includes the 706 patch cable

Traveler 8P IC (8-pin ICOM) Includes the patch cable for any 8 pin ICOM

TRAVELLER
$89.99ea.

HEADSET MICS

Deluxe Headset Microphone *(left)* Lightweight and comfortable. Superb transmit audio, and earphone tonal quality. A foam covered microphone element is attached to the headset with a flexible rubber boom allowing proper positioning. A small PTT switch attached to the 6' cord can be held or attached to your clothing. Order **288I** for Icom, older Yaesu, Standard, ADI, Radio Shack and compatibles • **288K** for Kenwood and compatibles • **288Y** for Yaesu FT-10, 50, VX-series ea. **$24.99**

292Y Featherweight™ Earphone/Mic *(right)* Has an earbud earphone and a tiny thumb-sized microphone/PTT switch that's built right into the 4 ft. cord. Works with Icom Q7A, Yaesu FT-10R, FT-40R, FT-50R and VX series transceivers **$17.99**

MICROPHONES

297 Desk Microphone *(left)* A sensitive condenser microphone element coupled with a low-noise amplifier. Speech tailored - select *SSB Mode* for smooth, articulate DX punch or *Full-range Mode* for clear FM or AM operation. Flexible microphone boom, momentary and locking PTT switch. On-the-Air LED indicator, frequency up/down switch. Base with rubber feet is 4"w x 1-1/4"h x 6"d. Requires (2) "AA" batteries. **$69.99**

5397 Adapters for 297 8-pin or modular for Icom, Kenwood or Yaesu (5397MI model on closeout $8.99) ..... ea. **$15.99**

295Y Mini Speaker Microphone *(right)* For popular Yaesu handheld transceivers (FT-10R, 40R, 50R, VX-1R) and Icom IC-Q7A. Uses a non-directional electret element. Transmit LED. For Icom order **295I** or **295K** for Kenwood ..... ea. **$15.99**

HEADPHONES

392B Communications Headphones Perfect for amateur radio and shortwave listening, and great for all modes. Superb padded headband and ear cushion design, plus it's lightweight - only 8 oz. High-performance driver units with a full 100Hz-24,000 Hz frequency response provide enhanced sound and outstanding speech fidelity. Each earphone has individual volume and tone controls. Comes with gold-plated plug and 9' cord. Mono or stereo, Includes 1/4" adapter **$19.99**

K-COM

TELEPHONE RF INTERFERENCE FILTERS

Cure telephone RF interference in the most irritating cases even when dealing with transmitters with full legal power output. Use any number of filters with no adverse effect on telephone performance.

RF-1 For single line equipment including wired or cordless phones, answering/fax machines, modems, etc. Uses standard modular connectors **$16.99**

RF-1/2-LINE For 2-line or multi-line, multi-station electronic key phone systems..... **$22.99**

RF-1/COILED For use when RFI enters thru coiled telephone cord between base and handset **$22.99**

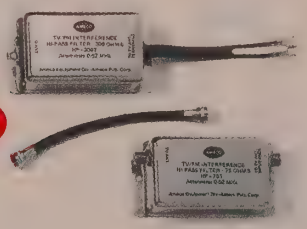
RF-2 Hard-wired, provides a wide range of installations optional to add RFI rejection at a variety of physical/electrical locations in the system; inside jacks, behind wall mounts, etc..... **$10.99**

VECTRONICS®

LP-30 *(right)* **Low Pass Filter** Suppress TV interference from HF transmitters. Use between transmitter and antenna or tuner. Up to –70dB attenuation of harmonics falling in TV bands. For 52Ω, up to 30MHz and 1500W RF continuous power. **$69.99**

LP-2500 Rated for 2.5KW continuous.. **$129.99**

HPF-1 *(left)* **High Pass Filter** Install at TV antenna terminals. Stops interference caused by overload or harmonics from HF transmitters operating below 30MHz. High harmonic attenuation but low loss in the 52-550MHz TV passband. For 300Ω (balun and Type-F connector supplied for 75Ω)..... **$24.99**



AMECO

High Pass Filters Stop TV, FM and VCR interference caused by harmonics or overload. Installs at TV or VCR antenna terminals or connector. Sharp frequency cutoff at 52MHz with 70dB attenuation below 50MHz.

HP-300T (300Ω) or **HP-75T** (75Ω).....ea. **$12.99**

DCI DIGITAL COMMUNICATIONS

BANDPASS FILTERS

Install between a 2m, 220 or 440MHz rig and antenna to reduce strength of out-of-band interfering signals while allowing wanted signals to pass through at full strength. Eliminate squeals, squawks, beeps and strange voices from a UHF or VHF radio caused by intermodulation from strong, nearby pagers, police radio, etc. Effectively reduces spurious emissions on transmit. Hear desired signals even in crowded, urban centers • Design: 2M/220MHz – 4 helical resonators; 440MHz – four 1/4-wave linear resonators; both with aperture coupling • VSWR 1.5:1 • 200W rating • Made of extruded aluminum, copper and brass • 12w"x 3"h x 5"d • 2 lb, 11oz

146-4H 144–148; Loss <1 dB; Selectivity: –57dB @ 136MHz and –43dB @ 156MHz. SO-239 silver-teflon connectors..... **$99.99**

146/144DB 144–148/438–450MHz; Selectivity: –50dB @ 136MHz, –40dB @ 156MHz, –30dB @ 425MHz, –25dB @ 465MHz. SO-239 silver-teflon connectors..... **$169.99**

145-2H 144 to 146MHz **$99.99**

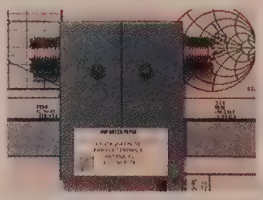
223.5-3H 222 to 225MHz; Loss 1 dB; Selectivity: –33dB @ 233 3MHz and –28dB @ 233 MHz. SO-239 silver-telfon connectors..... **$109.99**

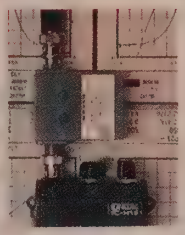
445-10C 440-450MHz; Typical selectivity: –47dB @ 425MHz, –50dB @ 456MHz; Loss 1dB. Type-N silver-teflon-gold connectors..... **$119.99**

435-10C 430 to 440MHz..... **$119.99**

Upgrade to type-N connectors on 2m and 220MHz models – add $10 to price; Special Order

PAR ELECTRONICS





INTERMOD FILTERS

Solve most intermod or front end overload problems from paging systems, etc. with these asymmetrical, 45-54dB notch filters. Centered on the offending pager spectrum of 152-153MHz, they work effe-ctively with a loss of ≤0.5dB and a 1.25:1 VSWR. Works with dualbanders by providing a low-loss pass-thru of 70cm signals.

VHFDN152 2m base/mobile intermod filter, rated 50W, SO-239 connectors, 2"h x 1"d x 2½"w **$62.99**

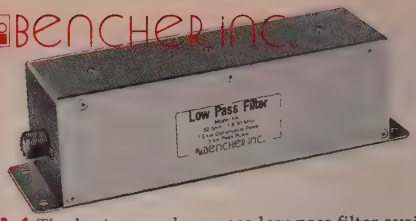
VHFTN152-158 **Triple Cavity** Similar to the VHFDN152 except it places a second notch in the 158MHz pager band in addition to the dual notch in the 152 MHz band. 2½"h x1"d x 3"w..... **$82.99**

VHFDN152HT 2m intermod filter for handhelds BNC connectors, 20W. 1½"h x ¾"d x 2"w.. **$68.99**

UHFDN450 UHF intermod filter for base or mobile. Blocks pagers & two-way transmitters that cause 70cm intermod; transparent to 2m.. **$62.99**

UHF-12 12" Belden RG-58/U jumper cable with silver/gold/teflon PL-259's on each end..... **$9.99**

BENCHER INC.



YA-1 The best general purpose low pass filter available. Check the specs at www.bencher.com! 1kW, 80db attenuation @ 50MHz..... **$85.99**

MFJ ENTERPRISES, INC.

704 50Ω **Low Pass Filter** Install between HF transmitter and antenna to reduces TVI from harmonics that fall in the TV band. Handles 1kW from 1.8 to 30MHz **$49.99**

711 75Ω **High Pass Filter** Install at TV/VCR antenna input to reduce or eliminate interference from HF transmitters operating up to 30MHz.... **$24.99**

784B **Super DSP Filter** Eliminates those hetrodynes; reduces noise and interference on SSB/CW/AM, digital modes, VHF, EME, satellite. Tunable FIR filters minimize ring, prevent data errors. Up to 60dB attenuation. Tunable Spotting Tone™ auto tunes CW filter in narrowest bandwidth. 2W audio amp with AGC. 12V DC or 110VAC with MFJ-1315. 2.5"h x 9"w x 6"d..... **$229.99**

701 **RFI Free Choke Kit** Eliminate common RFI problems by winding offending cables around an RFI suppressing toroid. Effective from 0.5-200MHz. Separates into halves for easy winding of all types of cable: computer ribbon, TV coax, power cord, telephone wire, audio-video cables. Halves mount in snap-together plastic frame. For severe RFI problems and larger cables, multiples can be stacked for more effect. (Pack of 4 toroids)..... **$14.99**

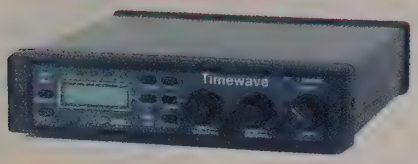
RF Inquiry

HI-Q Common-Mode™ Filters For tough RFI problems. Lowpass filters eliminate harmonic-type interference but are not capable of filtering out "Common-Mode" (differential noise energy transfer between transmitter and ground including stray capacitance). For cleaner signals, add an RF Inquiry filter. • 1.8–70MHz • -50 to -60db below 250MHz common mode attenuation • Insertion loss: less than 0.1dB • 50Ω impedance • Connectors: SO-239 teflon

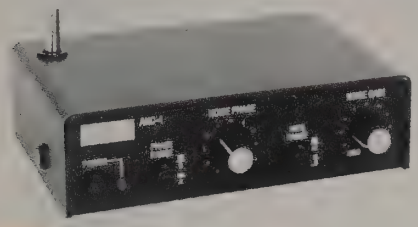
CF250E-UHF 250W, .98 x 10 in. 0.5 lb. **$89.99**

CF5KV-UHF 5kW, 2.1 x 12.6 in., 1.3 lb **$124.99**

TIMEWAVE TECHNOLOGY INC.



DSP-599ZX **Noise Filter** Digital Signal Processing provides superior reduction of QRM and QRN • Incorporates the newest high speed CPU that gives unparalleled features and is field upgradeable • Exact filter settings seen through the LCD, push buttons, and "Visible Memory" • Optical encoders for continuous tuning of filters • Examines and measures signal and noise correlation, dynamically filtering out undesired noise • Data and bandpass filters with steep skirts and linear phase response for CW and RTTY • Bandwidths range from 10Hz-600 Hz, and center frequencies from 200-2150Hz • Wider filters allow easy tuning and listening to multiple CW signals simultaneously • Supported data filters are RTTY (two methods of use), AMTOR, PacTOR, G-TOR™, HF Packet, SSTV, WeFAX, SITOR and CLOVER • Test instrument mode provides audio sine wave generator, audio millivoltmeter and two-tone audio generator for maintenance/set-up of audio circuits in radios • VHF/UHF weak signal and aurora provides remarkable improvement in clarity • Improves readability of distorted aurora SSB signals **$436.99**



ANC-4 **Antenna Noise Canceller And Diversity Combiner** Works with any transceiver (250W or less) or receiver for voice, data and CW from 500kHz–80MHz. Reduces or eliminates locally-generated power line, computer and TV noise. It cancels noise before it affects AGC circuits. Frequently, reception of signals well below noise level is possible. Con-nects between antenna and connector. A second antenna acts as a noise pickup. Front panel controls allow adjustment of signal phase and magnitude. The ANC-4 also operates as an active antenna using a noise antenna and noise gain control to amplify antenna output. And, it can be used as a diversity combiner to pick up weak signals or null interfering signals. Requires 11–16V DC @ 300 ma. 1.7"h x 6"w x 4.3"d, 2 lbs..... **$209.99**

MFJ ENTERPRISES, INC.

1270C **TAPR TNC-2 Clone** Interfaces computer with RS-232 serial port and terminal program for VHF/UHF, OSCAR and non-FM packet. Switchable HF/VHF modems. EasyMail™ personal mailbox, WeFAX. KISS interface for TCP/IP, 256K EPROM & 32K RAM. AX.25/Level 2-V2 software. Comes with interface cable, serial port connector and AC adapter. 12 VDC. 9.5" x 7.5" x 1.5"..... **$119.99**

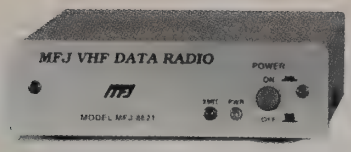
1278B **Multi-mode Data Controller** 10 modes: PACTOR, 16-level FAX, color, SSTV, PACKET, AMTOR, RTTY, ASCII, CW Navtex & memory keyer. Enhanced mailbox • 32K RAM • 16-gray level modem • 20 LED tune indicator • MARS mode • Internal modem header • 10 program message buffers • Dual radio ports • KISS interface • Host mode • Threshold control • RS-232/TTL ports • 12 VDC • 9.5"w x 9.5"d x 1.5"h..... **$279.99**

1278B/DSP The 1278B w/DSP filter.... **$359.99**

780 **DSP Board** Plug-in "brick wall" DSP data filter for 1278B..... **$89.99**

781 **DSP for all TNCs** This separate unit gives your Kantronics, Timewave, etc, TNC digital signal processing power **$119.99**

1272 **TNC Switch** Pushbutton selection for voice or digital. You specify the radio and TNC connection (multiple models available, 1272MYH on Closeout $24.99).....(ea.) **$39.99**



8621 **2M Packet Data Radio** High performance thru 9600 baud. Plug in TNC cable, your antenna and power – you're ready for packet. Crystal control on 145.01MHz, 5W output. Requires 12 VDC @ 1A. 5"w x 5.5"d x 1.5"h **$139.99**

8621X2 **Dedicated VHF Data Radio for APRS** Automatic Packet Reporting System transceiver. Ready to go on 144.39MHz **$149.99**

1275/1275M **Sound Card-to-Rig Interface** Connect between a transceiver and computer and enjoy all digital modes without additional equipment. Operate PSK-31, packet, APRS, AMTOR, RTTY, SSTV, CW, HSCW meteor scatter, contest voice keying, contest memory keyer, etc. Internal jumpers program mic wiring for any radio. Includes audio cables, power plug and a CD with a collection of the most popular amateur radio software to operate the digital modes. Requires 12VDC (110 VAC with optional adapter). Order **1275** for 8-pin round mic plug or **1275M** for 8-pin modular ..... ea. **$99.99**

1279 **Super Sound Card Interface** This super sound card interface has all of the features of the MFJ-1275 plus • Auxiliary input jack, allows switching of a sound card from the 1279 to something else. No more plugging and unplugging! • Direct CW/FSK keying jack, allows direct CW or FSK keying operation • Headphone jack, use stereo headphones, also turns off external speaker • Footswitch, use a footswitch or other for PTT (push-to-talk) when not using VOX • Plug and Play, includes software, RS-232 and audio cables, AC power supply • **1279** or 8-pin mic plug, **1279M** for 8-pin modular (RJ-45) mic plug..... ea.**$129.99**

1273B **Sound Card Interface** A basic plug-and-play interface for the digital modes. Has jacks for sound card, radio, speaker and RS-232 (no mic jack or switch). Includes RS-232, audio and mic cables and software. No external power needed. **1273B** for 8-pin mic plug, **1273BM** for 8-pin modular (RJ-45) mic plug ..... ea.**$59.99**

AMATEUR ELECTRONIC SUPPLY
5710 W. GOOD HOPE ROAD.
MILWAUKEE, WISCONSIN 53223
(414) 358-0333

NO. 0000
DATE _____ 19____

THIS CERTIFICATE
TO MERCHANDIS
VALUED AT _____ DOLLARS $_____
PRESENTED BY _____

AUTHORIZED SIGNATURE

Gift Certificates For the Undecided

PacComm Packet Radio Systems, Inc.

Pico 128K Miniature TNC Z-181 high integration MPU with 1M address space • On-line help • Personal message system • APRS • Open squelch DCD circuit included • Optional internal GPS receiver and slide-on battery pack. 1"h x 2.5"w x 3.5"d • Standard model with 128K RAM . **$159.99**

Pico Dual 128K Dual Serial Port Model Adds hardware clock and second serial port for GPS or weather station to the standard model ... **$209.99**

Tiny–2 MK-2 Multi-Purpose Basic TNC *(top)* 32K RAM • TNC-2 EPROM compatible WA8DED host mode • KISS mode for satellite and TCP/IP Telemetry via RS-232 or TTL port • Disconnect header • Packet communication for a weather node • 45ma. draw • 5"h x 7"d 1.375"h **$159.99**

Spirit-2 High Performance Packet Controller *(bottom left)* Configures by setting jumpers and installing optional logic devices **$249.99**

HandiPacket Packet controller For portable or mobile operation • Loaded with features • Built-in 10-hr battery pack • 1.25"h x 2.5"w x 4"d **$229.99**

WEST MOUNTAIN RADIO

RIGblaster SOUNDCARD INTERFACE

The easiest way to connect a radio to a PC sound card for operating in analog and digital modes. A RIGblaster, PC, and software taking the place of old expensive adapters or TNC's, is the modern way to operate PSK31, RTTY, SSTV, CW, MFSK, AMTOR, PACTOR, Hellschriber, contest voice keyer, packet APRS, phone HSCW & WSJT, meteor scatter modes, repeater controller, FM club announcements. All models come with everything to get on the air including freeware, shareware and demo programs, stereo audio cables and 12V power supply.

RB/M8/C RIGblaster Run all sound card modes with a computer and 8-pin mic. Fully automatic; microphone and computer always work, no manual switching, no plugging or unplugging **$109.99**

RB/PL/C RIGblaster PLUS Adds a fully isolated CW/FSK keying output for direct keying of rig's jack for use with non-sound card software. Great for contesting on any mode, RTTY or CW. 8-pin **$139.99**

RB/NO/8C 8-pin NOMIC RIGblaster Smaller and less expensive. Perfect for portable or temp setups, and if mic isn't always needed ready to go. Use PTT circuit for fully isolated CW/FSK keying instead of PTT switching. No power supply needed. With Yaesu FT-100-series, use with a FT100/CBL 3' cable for a direct connection **$59.99**

RB/NO/RJC RJ-45 NOMIC RIGblaster Same as above with RJ-45 connector **$59.99**

Kantronics

MULTI-MODE DATA CONTROLLERS

KPC-3 Plus/128 1200 bps • Packet, GPS/APRS, Host, KISS and WEFAX modes, use with EMWIN • Personal Mailbox (PBS) now supports multiple calls • Remote access, sensing and control with two A/D and two control lines • PBS 100k, expandable with optional 512k RAM..... **$186.99**

9612 Plus/128 1200 port and second port of 4800–38,400 bps • Most modes/capabilities of the KPC-3 Plus and POCSAG (paging) • Unique design allows the addition of another port, high or low speed • Remote access, sensing and control capability • Telemetry transmission capability... **$369.99**

Hostmaster II+ Packet Software A great program to combine with the KAM, KPC-3plus/128 and older TNC's (not for KAM 98 or KAM XL). The program uses split screens, allows for packet and non-packet operations (with KAM) simultaneously and cuts down dramatically on the use of keyboard commands to your packet unit **$89.99**

KAM 98 Single port multimode TNC for HF and VHF use • Packet, GPS/APRS, Host, KISS, WEFAX, CW, RTTY, AMTOR, PACTOR, G-TOR®, Free signal detection for HF email, A/D inputs/TTL outputs • HC11 for more processing power to accommodate future upgrades • Wider range of speeds; use 1200 bps packet on 10 meters **$399.99**

KAM XL Multi-Mode DSP Controller Kantronics third generation multimode TNC, a state-of-the-art design giving operations on HF, VHF, and UHF, while supporting DSP modems and popular new modes of operation • Packet 300/1200bps • G-TOR • Pactor I • AMTOR ARQ (FEC, SELFEC, CCIR 476 and 625) • PSK31 • RTTY • NAVTEX/AMTEX • ASCII • WEFAX • CW • Dual-port mailbox • Remote SYSOP access • GPS NMEA-0183 compatible • Kantronics Host Mode • KISS..... **$399.99**

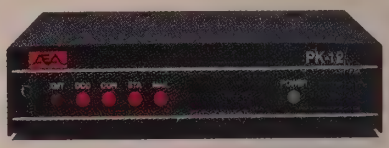
Host terminal Software – Takes advantage of true multitasking capabilities of Windows 95, 98, ME, NT and 2000. Release 1.5 with PSK-31 support.

PacTerm 98 For Kantronics™ TNCs **$79.99**

PK-Term 99 For Timewave and AEA (PK-12/96/232) TNCs. Support for PK-232/PSK..... **$79.99**

TIMEWAVE TECHNOLOGY INC.

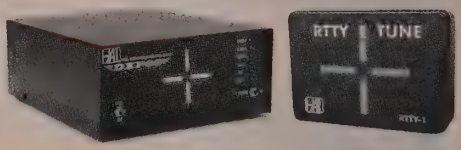
PK-232/PSK Multimode Data Controller The most popular data controller ever built, now with a sound card interface. Offering a new level of performance with accurate Digital Signal Processing filters for internal data modes and dual transformer isolation for sound card data modes. • 18 DSP filters, twin peak RTTY filters, 100HZ CW filter and adaptive PacTOR filters. Weak signals magically appear through noise and interference bounces off the filters for cleaner copy than old analog filters. Supports new sound card modes in addition to existing PK-232 modes. Comes with a complete cable and connector set, in addition to Timewave's on-line and telephone support. Requires 11-16V DC @ 800 ma. 8.25"d x 2.5"h, 3 lbs **$531.99**



PK-96/100K 9600/1200 packet TNC 9600 and 1200bps packet-ready • GPS firmware standard • Remotely program • GPS commands • Stand-alone tracking hardware HDLC for accuracy • True DCD to hear weak signals • Gateway as a node • Full MailDrop facility • PC PackRatt Lite™ terminal control and APRS™ software included • AEA host mode • Advanced command set • Identify TCP/IP, TheNet and NetRom • Separate external TX for 9600/1200bps adjustments • External reset • Windows™ and MacIntosh™ programs available • Requires 12V DC • 6.25"w x 7.5"d x 1.375"h, 1.25 lbs. 128K RAM **$219.99**

AC-5 120V Power Supply Provides 13.8VDC @ 1.7A for the DSP-599zx, PK-232/DSP, DSP-2232, DSP-1232. DSP-232, PK-900 or other low consumption accessory. Desktop, has 6 ft. long input and output cords so the unit does not take up any wall socket or power strip space..... **$24.99**

HAL COMMUNICATIONS CORP.



DXP-38 Multimode HF Modem Stand-alone DSP modem providing excellent performance on RTTY, CLOVER, ASCII, AMTOR and P-Mode. DOS and Windows (95, 98 and NT 4.0) software are included. Uses the same serial I/O commands as, and will operate with any 3rd-party software written for the DSP-4100. 12V DC @ 0.6A. 3" x 7" x 10".. **$395.99**

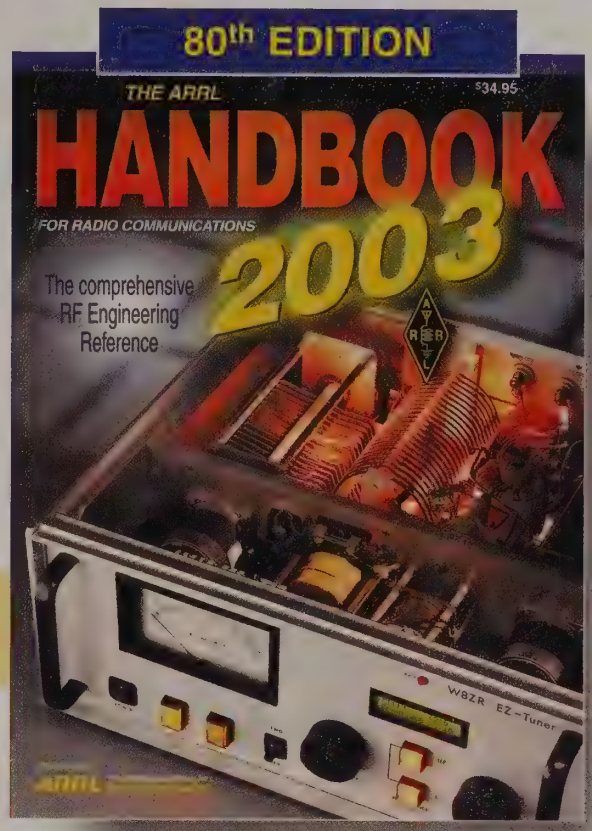
RTTY-1 Tuning Indicator EZ to use, very accurate. works with any FSK radio modem. Crossed LED bars show correct tuning for FSK modes including Baudot Teletype (RTTY), ASCII Teletype, AMTOR, SITOR, P-Mode, HF Packet. Filters: 2125 Hz (Mark), 2295 Hz (Space) 5.5"w x 3.75"h x 1.25"d, 0.5 lb. Requires +9V-18V DC @ 160 ma **$99.99**

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

Always revised!

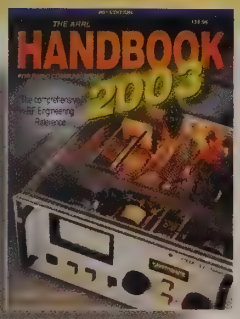
The 2003 edition includes:

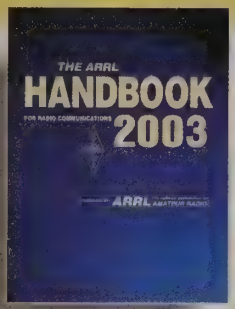
- An updated and comprehensive chapter on *Modulation Sources* including digital voice!
- A revised and comprehensive chapter on *Digital Signal Processing* (DSP) technology.
- A new high-power, automatic EZ-Tuner project by W8ZR.
- An "Ugly Transformer" project for high current, 120-V ac stations.
- A revised chapter on *Safety Practices.*
- A completely updated *Handbook* Address List in the *References* chapter.



The ARRL Handbook for Radio Communications

THE STANDARD!





Softcover—ARR 101 $34.95

Hardcover—ARR 097 $49.95

The ARRL Handbook CD for Radio Communications

Fully Searchable!

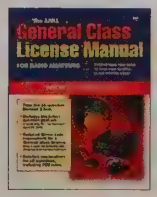
Version 7.0—for *Windows* and Macintosh*
View, Search and **Print** from the entire 2003 edition book! CD-ROM.
ARR 098 $39.95

*Some supplementary software utilities included —for *Windows* and DOS only.

ARRL *The national association for AMATEUR RADIO*

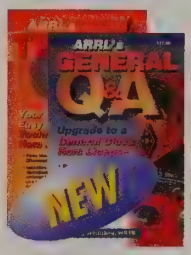
STUDY GUIDES

Now You're Talking
Used by 1000's of hams to study for the first license level exam ..... ARR 235 **$19**



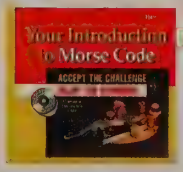
General Class License Manual
All study material needed for the test ARR 169 **$15**

Extra Class License Manual
Complete source for test material ARR 156 **$24.95**



Tech and General Q&A's
Authoritative guides to every question in the Technician (Element 2) and General question pools. Filled with everything needed to pass these two Amateur license exams! Clear explanations to questions ARR 315/170 ea. **$12.95**

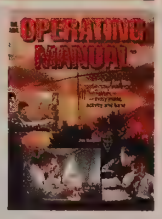
Ameco's complete Morse Code Instructor for IBM PC/XT/AT or compatible
Menu-driven, on-line "help" screens. Generates random charac., no., punctuation and QSO's. Similar to FCC/VEC exams AME 107-PC-2 **$29.95**



Your Introduction to Morse Code
A cassette tape or CD series from ARRL to teach Morse code in order to pass the General exam. Set includes plain-language practice text and Morse code exams using the format of a typical amateur contact. ARR 195(tapes)/ARR 192(CDs) ea. **$14.95**

GENERAL

Operating Manual
The best one-stop book of radio operating information that is available ..... ARR 241 **$25**



License Study Materials from Gordon West, WB6NOA and W5YI

The *best way* to prepare for all your Amateur Radio exams

Gordon West Study Books

Gordon West books include all the possible FCC test questions, explanations of correct answers, charts, diagrams, and more. His unique writing style makes learning easy and fun – and helps you understand answers for test success.

Technician Class	W5Y GWTM	$11.99
General Class	W5Y GWGM	$12.99
Extra Class	W5Y GWEM02	$19.99

Theory Tapes by Gordon West

Each audio set recorded by Gordo walks you through what you need to know for the Technician, General and Extra Class written exams. Great study companions to the Gordon West books.

Technician Theory	W5Y GWTW	$19.99
General Theory	W5Y GWGW	$19.99
Extra Theory	W5Y GWEW02	$29.99

Learn the Code the *right way* with Gordo's 6-tape sets

Gordo's Morse Code tapes offer the in-depth training you need to successfully learn the code for your General Class upgrade – and for higher speeds!

W5YI Morse Code software is a Windows-based program that allows you to practice code at 0-48 wpm on your PC.

Morse Code 0-5	W5Y GW05	$29.99
Morse Code 5-16	W5Y GW13	$29.99
Morse Code 10-28	W5Y GW20	$29.99
Morse Code Software	W5Y WMC	$14.99

Technician Class Videotape & Book

Easy-to-follow video course is the ideal companion to the Gordon West *Technician Class* book. Covers Element 2 Q&A to reinforce book. Comes with free Part 97 rule book. **W5Y NCVP** $29.99

W5YI Computer-aided license study software packages

Learn at your IBM-compatible PC! Each package contains two 3 1/2" discs with the FCC Q&A and answer explanations. Each package includes the appropriate Gordon West study manual, W5YI CW software, and a free Part 97 rule book. Study the book and take practice exams until you know the material! For Windows 3.1 and higher.

Technician Class	W5Y NCS	$34.99
General Class	W5Y GUS	$34.99
Extra Class	W5Y ECS02	$39.99

Ham Operator Software Includes all written and code exams plus CW software and free Part 97 rule book (no books). **W5Y HOS02** $39.99

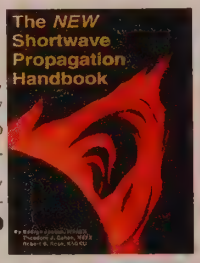
Tech Plus General Includes *Technician* & *General Class* books and exams, W5YI CW software, and free Part 97 book. **W5Y TPG** $49.99

Ham Radio FAQ

THe ARRL Lab and "The Doctor" answer your frequently asked questions. Useful information on: antennas, transmission lines and propagation, station, mobile, portable, repeaters, batteries, grounding and lightning..... **ARR 186 $14.95**

ARRL RF Exposure & You

Explains how to meet the FCC requirements using tables, graphs and worksheets to guide you through the process. If it turns out you aren't meeting new requirements, this book suggests what to do ..... **ARR 258 $15**



The New Shortwave Propagation Handbook

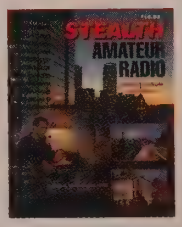
A "must read" for amateurs, shortwave listeners or any radio communicators who need to make the most productive use of radio spectrum, regardless of sunspot cycle...**CQX SHORTWAVE $19.99**

Lightning Protection and Ground Solutions for Communication Sites

Written in a non-technical manner so anyone can understand and install appropriate protection/ground systems to guard their communications equipment against adverse pulses **PLY GLEP $20**

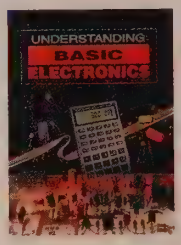
Pocket REF, 3rd edition

Chapters on air and gas, carpentry, chemistry, computers, electricity, math, hardware, plumbing, steel and materials surveying, welding, general information and more. Thousands of updates and many new sections like mileage charts. Everything you need to know .. **SEQ POCKET REF $12.99**



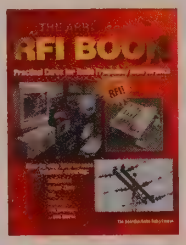
Stealth Amateur Radio

8 chapters on how to get on the air and enjoy ham radio using low profile tactics to circumvent CCN&Rs and other restrictive ordinances. Interference solutions, mobile operation, antenna systems and components..... **ARR 310 $14.95**



Understanding Basic Electronics

For beginners and those who want to brush up on electronic principles. Clear, simple explanations and loaded with illustrations ..... **ARR 328 $20**



ARRL RFI Book

318 pages of step-by-step interference solutions covering: telephones, power lines and electrical devices, TVs, cable systems, VCRs, stereos, computers, VHF intermod, mobiles and more ..... **ARR 261 $20**

Hints and Kinks 15th Edition

Want to improve your station's performance or solve a problem? This is the book! .... **ARR 187 $12**

QRP Power

Learn about low power transverter design, transceivers, transmitters & more..... **ARR 256 $12**

Log Book

This universal log suits all amateur radio operations, DXing contests, rag-chewing, 8½ x 11" **ARR 201 $5**

Minilog Log Book

For portable operation, 6.5 x 4" ..... **ARR 205 $4.95**

Grid Locator Atlas

A must have for all contesters..... **ARR 180 $5**

On the Air with Ham Radio

A guide to the ways hams communicate. Provides recently licensed hams with all the info they'll need in making choices to get active on various ham bands and modes. Information on repeaters, satellites, television, HF digital modes, VHF FM, CW and phone, APRS, or HF phone and CW. 192 pages..... **ARR 240 $17.95**

Heil Ham Radio Handbook

Loads of useful information for the beginner through the more advanced operator. Chapters on Basic electronic and antenna theory, "building your own", and assembling an amateur radio station and much more! **HEI HAMRADIOHAND...$12.95**

FCC Rule Book

Complete guide to all FCC regulations pertaining to amateur radio ..... **ARR 161 $12**

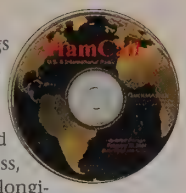
WeFax Program for IBM (v 3.1)

A full-featured facsimile reception program for use with the Kantronics line of Terminal Node Controllers (TNCs). Improved for more enjoyable WeFax reception **KAN SuperFax II Closeout $49.99**

CSS Log Windows CD

Logging as easy as 1-2-3! Now in 32-bit and includes PSK-31. Type in the callsign, press enter, and press save and you've logged your contact! It runs under Microsoft Windows 95, 98, Me, NT, 2000 and the newly released XP. Keep track of DXCC, WAS, Counties, IOTA and more. Computer control of your Icom, Kenwood, Yaesu, Ten-Tec, Kachina, JRC or Elecraft! Rotor control for Hy-Gain, Yaesu, Heath, M2, Rotor-EZ and Sarteki interfaces. Internet and radio DxCluster support, as well as syncing and autologging from Pacterm '98, PkTerm '99 and MultiComm Host Multimode **$89.99**

Buckmaster HamCall CD



Search over 1.5 million listings by name, address, county, country and license class. Also displays license issue date, expiration, previous call and class, area code, e-mail address, URL, county, time zone, lat/longitude, grid square, beam heading and distance. Other features: PC DOS and Windows (3.1, 95, 98) compatible • Extensive international listings • Label printing routine • Over 4,000 photos and QSL cards • Interfaces with most logging programs • Calculates beam heading..... **BUC HAMCALL $50.99**

Summer 2002 Radio Amateur Callbook CD

Names, addresses, and calls of more than 1.6 million listings covering 250+ countries. • Select English, Spanish, German or French • Display ITU and IARU for each call • US data lists population by city, state capitals and other interesting facts • International data shows population by contry, world capitals and more • Over 65,000 email listings • Option to run program directly from computer hard drive • Bearing and distance feature • Search: U.S. data by callsign, last name, county, city and zip; International data by callsign • Search clubs, military and silent keys • And many more features • Windows or DOS platform . **RAC 087638 $49.99**

QRZ! Ham CD

Brings over 1,100,000 callsigns from stations around the world to your fingertips (60,000 from CIS countries). Includes the latest FCC listings. • Over 200,000 e-mail addresses • Morse code training software • On-line FCC exam training software • Computer radio control programs • Over 15,000 digital QSL images • Supported by most logging and contest programs • Compatible with Windows 3.1/95/98/NT/2000, MS-DOS • Macintosh, Linux, UNIX and others downloadable ..... **WAL HAM QRZ $29.99**

SPECIAL INTEREST

Radio Amateur's Satellite Handbook

A beginners guide to satellite operating, tracking and antennas. Detailed appendices and glossary ..... **ARR 264 $24.95**

ARRL Weather Satellite Handbook

Types of satellites currently in orbit and how they operate. How to buy or build weather satellite receivers and antennas. How to build an interface to view images received from satellites or shortwave WEFAX on a PC, and more ..... **ARR 342 $20**

Satellite Anthology 5th edition

A compilation of QST articles dealing with satellites like Amsat-Oscars 10 and 13, Russian RS series and Microsats **ARR 277 $15**

Secure
www.aesham.com

LOGSAT PRO Satellite Tracking Software

If it Orbits the Globe Logsat Can Track it! Track hundreds of satellites in dozens of windows. **Features:** KANSAS CITY TRACKER support • Complete multi-tasking • Unlimited number of satellite windows can be opened at the same time • Voice alarms when satellite window becomes visable • 5 map projections, high or low resolution for 486DX2 and Pentium PC's or slower 386's • 3D antenna radiation diagrams can be displayed • On-line help • Includes The Satellite Encyclopedia. **Minimum Requirements:** Windows® 3.1/95/NT compatible • Mouse or compatible pointing device • Standard keyboard • 286 processor • 4MB RAM • 15MB hard disk space. **Optional:** PC compatible sound card with speakers • 486 with 32MB RAM • Kansas City Tracker rotor interface . **LOG LOGSAT PRO $69.99**

Pocket PC REF, 11th edition

Concise computer reference for the novice and the pro. Contains hard to find information for IBM's and compatibles. Includes DOS commands, ASCII codes, numeric prefixes, video standards, decimal/hex conversions, error codes, memory/address/IO maps, modem commands and switch settings, scan codes, CPU types, DOS/Windows history, PC industry phonebook..... **SEQ POCKET PC REF $14.99**

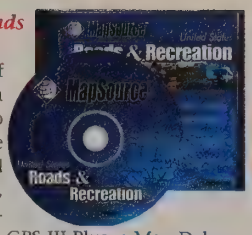
Practical Packet Radio

Everything you need to know including setting up a station, getting on DX packet cluster, & others ..... **ARR 253 $15.95**

MapSource Metroguide

Contains detailed US map with business and residential streets and address lookup capability once downloaded to a compatible Garmin GPS unit. Shows highways, local roads, interstates and exit services for all 50 states. Displays points of interest and emergency services. Also includes marine navaids and inland cartography. Designed for the Garmin Street Pilot and eMap Deluxe ..... **GAR 010-10215-03 $99.99**

MapSource U.S. Roads & Recreation



Provides owners of compatible Garmin GPS units with maps to get where they are going. Using a PC and MapSource software, enjoy high-speed transfer of maps to GPS. For GPS-III Plus, e-Map Deluxe, NavTalk & Street Pilot. **GAR 010-10215-00 $99.99**

MapSend Topo USA™

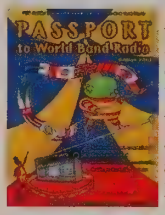
Maximize your GPS' potential with MapSend. Download highly detailed maps into the Magellan MAP-330, SportTrak PRO and Map, and Meridian™ products. Maps include U.S. topography, trails, streets, rivers, lakes, coastlines, and points of interest. Map sizes and regions are user-selectable and customizable. Create waypoints and routes. Then download them into a GPS or save them to a PC. Download personal tracks to view on MapSend. Use the Search function to find street addresses, cities, bridges, airports, caves, parks, campgrounds, mines and more ..... **MAG 980611 $99.99**

MapSend™ Streets and Destinations

For use in the U.S. with the Magellan MAP-330, SportTrak PRO and Map, and Meridian™ products. Includes 500,000+ uploadable points and over 35 categories. Download street maps in addition to lakes, rivers, parks, etc .... **MAG 980613-01 $99.99**

2002/03 Repeater Directory

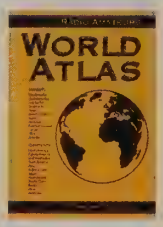
More than 20,000 listings for voice and digital repeaters and propagation beacons located in the Americas. Lists more than 500 beacons from 14-24GHz, band plans, tone chart, committees and clubs . **ARR 271 $9**



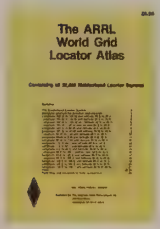
Passport to Worldband Radio

2002 shortwave listening guide containing data on international broadcast stations; names, locations, frequencies, times, coverage, target area, transmit power and more. What to buy, how to listen **ARR 243 Closeout $19.95**

Radio Amateur's World Atlas



16 pages of colorful maps covering the Americas, West Indies, Asia, Japan, Australia and the Pacific Ocean, Europe, Africa, and Antarctica. **ARR 347 $9.95**

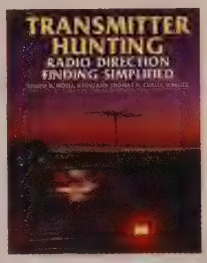


The ARRL World Grid Locator Atlas

Contains Information on the locator system and maps showing all 32,400 Maidenhead Locator Squares..... **ARR 180 $5.00**

2002/03 TravelPlus for Repeaters™ v6.0
Trace a route on color maps with major and state highways in the US and major highways in Canada, identifying repeaters along the way. *TravelPlus™* includes the entire ARRL Repeater Database and 2002-2003 *Net Directory*. Use on-screen compass rose to scroll maps. • NEW! Includes AM/FM stations • Print maps/lists based on route • Customize info • Use with GPS receiver to locate open repeaters, repeaters near current location or to return home • Export lists in popular file formats • Import routes from Street Atlas USA® and scanned/downloaded maps.. **ARR 322 $39.95**

Transmitter Hunting - Radio Direction Finding Simplified



How to use transmitter hunting both for practical purposes and fun. Using this information, locate radio frequency jammers, other malicious interference and downed aircraft; engage in "T-hunting;" and help search and rescue groups. Chapters cover getting started, equipping a vehicle, hunting techniques, antennas, RDF skills and more!... **ARR 320 $24.95**

UHF/Microwave Projects Manual
Volume 2 of practical projects including microwave antennas, transverters, noise measurements and more. Includes a project for using a DSS dish on 5.7 and 10 GHz!..... **ARR 324 $15**

Celestron Sky Map

Big, durable, 11.25" x 13.75", spiralbound, book. Contains basic star map and glow-in-the-dark star finder, seasonal star charts, constellations and characteristics of stars..... **CEL 93722 $19.99**

Planisphere and Planet Finder
Spin disk until time of night lines up with the time of month. Place planets using guide on the back. Facing south, hold guide overhead with "south" at the bottom of the chart. The star and planet positions will match ... **CEL 93720-40 $9.99**

Geochron World Watch Software and Screen Saver

See time for locations you create, or select from over 475 predefined cities. Illuminates areas currently experiencing daylight (sunrise/set), also highlights changing seasons. Global daylight savings time auto adjusts. Options to change colors and features. Requires Windows® 95 or later, 4MB memory (16MB recommended), 5MB free space..... **GEO WORLDWATCH $49.99**

Police Call

Frequency guide and reference for scanner users. Six hundred pages packed with information to help you get the most out of using your scanner. Includes CD ROM. Covers either Illinois, Indiana, Kentucky, Michigan, Ohio & Wisconsin or Arizona, Colorado, Idaho, Iowa, Kansas, Minnesota, Missouri, Montana, Nebraska, Nevada, New Mexico, The Dakotas, Utah, and Wyoming..... **POL VOL3/42003 or VOL5/82003 $19.99**

PERIODICALS

ARRL Periodicals on CD-ROM
Complete text and illustrations for all articles in *QST*, *QEX* and *NCJ* by full year. CD includes: • Search engine • Bookmarking tools • Windows printing and clipboard support. Find info by title, call sign, name, keyword or click web links. Also includes source code for software projects and PC board etching patterns. Windows™ 3.1 or higher. 1995-01 (1 year/ CD) **ARR 254, 257, 259, 263, 266, 267, 268** (ea.) **$19.95**

QST Views

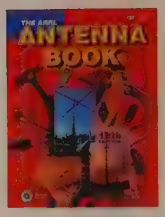
Back issues of QST available in full years on CD-ROM. Every page is stored as a black-and-white image that can be read or printed. Easy to use software allows you to: • Search by title and author • Select by year and issue • Browse individual articles. For Windows™ 3.1 or higher. 1970-99; 5 yrs/CD ..... **ARR 104 thru ARR 109** (ea.) **$39.95**

ANTENNAS

Antenna Compendium 5 with software
Baluns, HF beams, yagis and quads are just some of the subjects covered. Articles on antennas, transmission lines and propagation. Projects to build. Includes IBM software for plotting antenna model data files ..... **ARR 139 $20**

Antenna Compendium 6 with software
More articles on antennas, transmission lines and propagation. More projects ..... **ARR 137 $22.95**

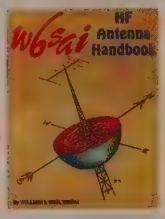
Antenna Book with IBM software



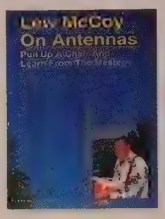
This book covers all aspects of design, theory and construction, with software for design, propagation forecasting and much more ..... **ARR 126 $30**

Simple and Fun Antennas
Lots and lots of real-world, practical antennas you can BUILD YOURSELF! 16 chapters on different types of HF, VHF antennas, masts and supports, towers and performance. 70 useful projects..... **ARR 304 $22.95**

W6SAI HF Antenna Handbook

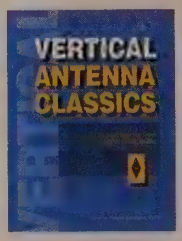


Lots of inexpensive, practical projects that work. Great guide for constructing loops, yagis & verticals . **CQX W6SAIHFANT $19.99**

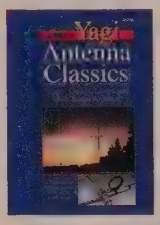


McCoy on Antennas
Pull up a chair and learn from the master! Loaded with antenna projects for Tech thru Extra class. **CQX LEWMCCOY $15.99**

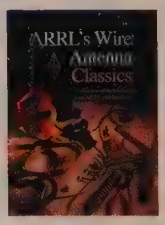
Vertical Antenna Classics



A range of articles from *QST* and the *Antenna Compendium* series. Selected tips and techniques from QST's "Hints & Kinks". Includes theory, modeling, VHF, UHF, HF, directional arrays, reduced size, radials and ground, antenna product suppliers ..... **ARR 329 $12**



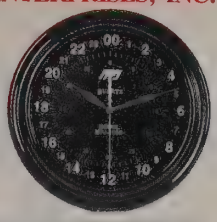
Yagi Antenna Classics
Collection from QST, QEX & others. Provides a historical perspective, novel and ambitious ideas, as well as computer-optimized designs. Chapters on mono/multibanders; HF, VHF and UHF beams; computer modeling; masts .... **ARR 350 $17.95**



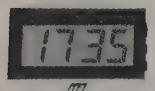
Wire Antenna Classics
Wire antennas ranging from simple to complex. Find one to deliver the performance you want. Dipoles, broadband and multi-band dipoles, loops, collinears, rhombics, wire beams, vertically polarized and receive antennas are all featured, even a chapter on tree-mounted antennas... **ARR 344 $14**

More Wire Antenna Classics
Enjoy even MORE wire antennas! Filled with innovative designs from the pages of QST and other ARRL publications..... **ARR 208 $14**

MFJ ENTERPRISES, INC.



105C 24 Hour Quartz Wall Clock Black, 10" diameter face, sweep second hand. Uses one "AA" battery..... **$19.99**



MFJ-24 HOUR LCD CLOCK

MFJ-12/24 HOUR DUAL LCD CLOCK

Small 24-Hour Clocks A dual clock with separate UTC and local time display modules, and a single clock with 24 hour time only. Heavy brushed aluminum frame, 5/8" high LCD numerals, sloped face. Flashing seconds colon, battery included.

107B *(left)* **Single**, 2.25"w x 1"h x 2"d..... **$9.99**

108B *(right)* **Dual**, 4.25"w x 1"h x 2"d..... **$19.99**

112B DX'ers World Map Clock Shows time at any QTH througout the world on an attractive LCD world map. Also shows day, month, date and year. Choose 12 or 24 hour. Daylight saving time feature. Grey, cool bile backlight for night viewing 4.25"w x 3.3"h x 2.25"d..... **$24.99**

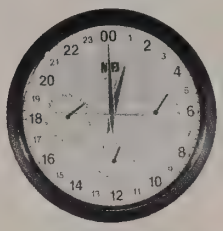
113 12/24 Hour Desk Clock Switchable 12/24 hour display • 9-minute ID timer • Alarm function • 9V battery back-up for power failures • 110 VAC, 60Hz • 9"w x 4"h x 2.5"d..... **$19.99**

115 WORLD Map 24 hour Quartz Wall Clock Set it to GMT and you'll know what time it is in designated areas of the world any time of day. Premier cities outline the trim of the 12" diameter. Operates on "AA" battery (not included) .. **$24.99**

116DC 12 VDC, 12 Hour LCD Travel Alarm Clock Great for motor homes and truckers! Green 5/8" LED digits show 12 hour time format. Ten minute ID buzz, two-level alarm (100dB - high) low/high @ 110dB) 9V back-up battery. Power cord with cigarette lighter adapter attached. Compact, 4.5"w x 2"h x 4"d, 17 oz. Closeout **$9.99**

118 Jumbo LCD™ 24 or 12-hour clock 1.25" high with high contrast LCD. Shows year, month, date and day in four different languages. Includes 100 year calender and flip stand. Uses one "AAA" batt. (not incl.). 5.75"h x 3.375"w x 0.5"d **$24.99**

123 Eternity Atomic Clock™ Solar powered and automatic time set by radio signals received from WWVB. Large (6.75"w x 2"h) LCD display, selectable 12/24 hour time format, digital calender. Ordinary room light powers the solar cells and also replenishes a built-in rechargable battery; also uses (2) "AAA" batteries (not included) for back-up power. Metallic tan, 9"w x 3.5"h.. **$79.99**

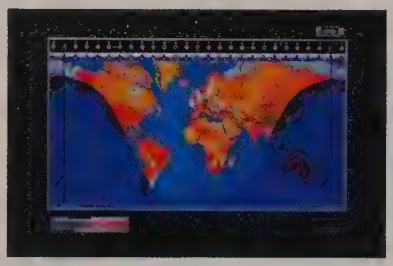


125 DXer's Dream 24-hour Quartz Wall Clock 12" diameter face shows 24 hour format with smaller day, date and 12 hour indicators. All dials set independently as desired. Uses a single "AA" battery (not included)..... **$29.99**

132AT See Thru™ LCD Clock Transparent 12-hour display makes the high-contrast, 1.75" digits appear to float in the air. Loud alarm/snooze function. Silver-tone, 9"w x 3.5"h. Uses 2 "AA" batteries (not included) ..... Closeout **$14.99**

152B ThermometerClock™ Shows out/indoor temp & time. Huge LCD multiple display shows 12/24 hour time and Celsius/Fahrenheit. Auto daily update of min/max temperature readings and memory function that recalls readings during a selectable period. Wall mount or desktop display. Includes outdoor sensor and 10' wire. Requires "AA" battery 5"h x 2.375"w x 0.625"d **$24.99**

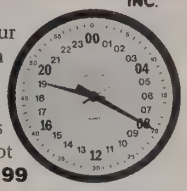
GEOCHRON ENTERPRISES INC.



STD BLK/GOLD or **STD OAK/GOLD** A framed, lighted world map which is a continuous belt of mylar film in constant motion synchronized with Earth's orbit. Displays current time world-wide, sunrise/set, and current season everywhere via an illuminated pattern • Allows for calculation of time in non-standard zones • Shortwave radio prefixes • Standard model in black or oak with gold trim • 3' x 2', wall mounting ... **Drop Shipped $999.99**

Available by Special Order in numerous trims/finishes, and in 3 other models (with analog 0-60 min. scale).

Benjamin Michael Industries INC.



973A Battery operated 24-hour quartz controlled clock with sweep-second hand. 12" dial allows excellent visability. Black textured case and glass crystal. Uses AA battery (not incl.). 14" dia. x 1.75"d.. **$49.99**

972AD 14" dia., 12/24 hr. wall clock, sweep-second hand. Uses "AA" battery (not included).... **$32.99**

CSI® CONNECT SYSTEMS INC.

INTERCONNECTS

Fully automatic interface between an FM base radio and phone line to initiate and receive phone calls on a mobile or HT. Each contains powerful, microprocessor-controlled features such as 90 memory speed dialer, redial, built-in programming keyboard and digital readout, remote base mode, regenerated tone or pulse dialout, CW ID and toll restrict.

CS-800 Full Duplex Interconnect Operates full or semi-duplex and also has a built-in repeater controller. Simply connects to transceiver mic and speaker jacks. FCC and DOC approved. 12-15 VDC. 7.875"w x 7.5"d x 2"h, 2.5 lbs..... **$369.99**

CS-900 Control Station Simplex Interconnect For use with any simplex transceiver. Also use thru remotely located repeaters (from base) for added range. Digital voice delay standard. Connects to mic and speaker jacks of simplex transceiver. FCC and DOC approved. (Transceiver switching speed does not affect performance) 12-15VDC 7.9"w x 7.5"d x 2"h, 2.5 lbs..... **$369.99**

WINEGARD®

Clearly the World's Best®

PROSTAR® 1000 VHF/UHF/FM Antennas Features die-cut impedance correlator that allows close spacing of antenna elements. Manufactured from high tensile aluminum for a strong, compact antenna that will better withstand strong winds and ice loading. Protected with polymer finish.

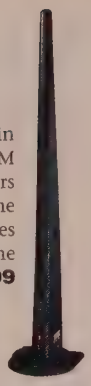
PR-7010 Metropolitan 22 active elements (9 VHF, 13 UHF) • 66.5" boom..... **$39.99**

PR-7032 Far Suburban 33 active elements (13 VHF, 20 UHF) • 103.25" boom..... **$64.99**

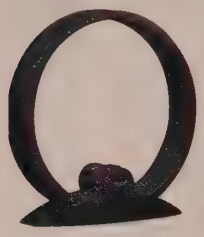
PR-7042 Fringe *(top)* 43 active elements (17 VHF, 26 UHF) • 149.75" boom..... **$99.99**

TERK

STEREO ANTENNAS



AF-9330 AM-FM Tower Antenna Built-in amp with gain contol improves AM and FM reception. Works with tuners and receivers with 75Ω or 300Ω FM antenna inputs. The AM connection consists of a pair of wires with U-clips. Useful 30-40 miles from the broadcast transmitter **$24.99**

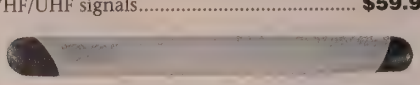


AM-1000 External AM Antenna A passive, adjustable 530-1600kHz AM antenna that improves reception over built-in loops. It is used unattached, next to the radio. Position for best reception, then rotate the tuning dial located at the center of the antenna to match the AM frequency tuned in on the radio. For best performance, it may be connected directly to an external AM antenna input **$49.99**

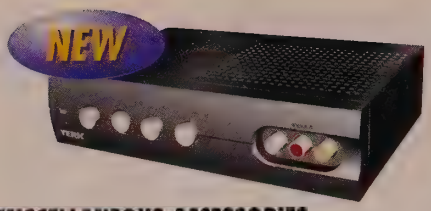
AF-9925 Powered Stereo Antenna AM-FM GammaLoop® circuitry improves performance by receiving FM frequencies only, eliminating multipath interference and distortion. Outstanding AM reception too! FM: 88–108 MHz • Adjustable, -20 to +42dB, 3dB N.F. amp gain • Omnidirectional pickup pattern • Impedance: 75Ω adaptable to 300Ω input with included matching transformer AM: 500-1700kHz • +15 dB, 1.5dB N.F. gain • Twin-lead independent circuitry • Impedance: 75Ω adaptable to 300Ω input with included matching transformer..... **$49.99**

TV ANTENNAS

TV-42 Amplified Clip-On Antenna Attaches quickly to any 18" satellite dish and adds reception of all local VHF/UHF channels. Covers channels 2-83 and FM broadcast. Antenna contains internal 10dB amp to minimize signal loss, allowing distribution to multiple TV's. Powered thru the cable by a DSS receiver. 10.25"h x 21.25"w x 3.5"d. Durable, powder-coated element and weather-proof amp housing. For Dual-LNB dishes, it has two built-in diplexers, providing more than one TV with DSS and VHF/UHF signals..... **$59.99**



TV-55 Amplified Out/Indoor TV Antenna Uses a helical, coiled broadband single element engineered for clear, powerful reception of HDTV broadcasts. Receives both UHF & VHF frequencies from 54-806 MHz. Built-in ultra-low noise 10dB amplifier can be switched in or out for best reception. Mounts inside or outdoors, only 46"w x3.5"h x 2.25"d. Includes a 12V adapter and mounting hardware..... **$89.99**



MISCELLANEOUS ACCESSORIES

MOD-41 A/V Selector and Modulator Select and view multiple video sources on any TV. Allows video components such as DVD players, video game systems, VCR's and camcorders to be viewed on TV's that are not equipped with an available audio/video jack. • Converts up to four audio/video source inputs to VHF for viewing on any TV • Switchable between video sources and cable or antenna • Stereo A/V and selectable to channel 3 or 4 output • Front panel instant push button switching • Eliminates the need for extra monitors • Separate VHF antenna/cable input simplifies installation and switching components..... **$39.99**

TSP-6 Surge Protector Protects satellite, CATV/antenna, phone, fax, and modems from damage caused by surges and spikes while providing constant EMI/RFI noise filtering. • Resettable circuit breaker • Surge and ground protection LEDs • Auto shut off if protection is destroyed • 8 outlets with safety covers (3 wide spaced) • 6' power cord with slim-line plug, 6' TV/satellite and phone cables • Rated 125V @ 1 Amps, 1875W..... **$39.99**

NETWORK SYSTEMS

LF-20 The Leapfrog Wavemaster 20 System Transmits picture and sound from your main TV to anywhere in your home. Eliminates the need for expensive and difficult-to-install in-wall wiring. Operates on 2.4GHz for reliable reception up to 100 feet away. It features both standard RF connectors and coaxial (RCA) jacks, for connection to any type of TV set, new or old, as well as audio or audio/video components..... **$89.99**

LF-IRX Leap Frog Remote Control Range Extender Control virtually any household device that is operated by an infrared remote controller, including a satellite receiver, DVD player, personal video recorder, cable converter box, VCR, CD player, stereo receivers, tape deck, etc. Long range RF signal works inside or out, through walls and floors, up to 100' away. **$39.99**

Emerson.

EVS-5000 2.4GHz Wireless Audio/Video Sender Set includes a 2.4GHz transmitter and a 2.4GHz receiver • Four selectable PLL channels minimize interference and allow use of multiple systems in the same area • Transmits DSS. DVD, CATV, CCD, camcorder, and VCR stereo audio and video signals throughout your home • Up to 300 ft. range (150 ft. through walls, floors and ceilings) • Special antenna design prevents multi-path distortion • Super high S/N video output • Includes 110V AC adapters and RCA cables • 6.25" x 6.25" x 2.75"..... **$79.99**

TVGuardian™

TV GUARDIAN Foul Language Filter Small computer that easily connects between your television and VCR. It continually monitors the closed-captioning embedded in the video signal and references each word against an internal directory of over 100 offensive words and phrases. If a word in the directory is detected, the audio is muted. It also removes the offensive word from the closed-captioning and replaces it with a profanity-free version. Three filter settings: Off, Tolerant Mode and Strict Mode. Three closed-caption options: Off, Display Text During Mute Only and Full-Closed Captioning. All settings and cable connections are capable of being secured under lock and key **$89.99**

RCA

ANT-1020 UHF/UHF/FM Indoor TV Antenna Contemporary design with no-scuff pad to protect cabinet tops. • 39-inch retractable and adjustable dipoles • UHF loop • Integrated 75Ω hook-up cable with "F" connector..... **$19.99**

TA-25 Eagle Aspen™ TV Distribution Amplifier Excellent for home and small MATV systems! UHF, VHF, FM • 54-890MHz • Low noise, typ. 6-7dB • 25dB gain • Switchable FM trap • Lightning protection • 6"w x 3"h x 1.75"d • 117 VAC, 4.5W **$19.99**

BUSHNELL

BINOCULARS

Powerview® Truly the "best of both worlds." Contemporary styling and design combined with legendary Bushnell quality and durability. The easy-to-hold and easy-to-use aspect of these binoculars also converge to make Bushnell Powerview binoculars an excellent value for the general and outdoor user. Powerview comes with soft rubber covering and the patented "Insta-Focus®" system. Each binocular comes with a neck strap and carrying case.

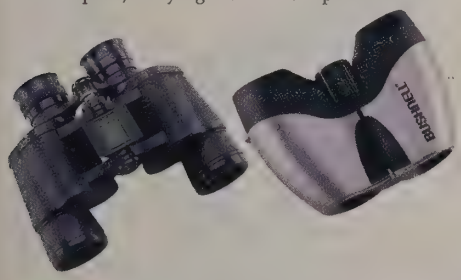
13-1226 *(left)* Compact binocular with folding roof prism. Designed in camo. Features include: 12x25 magnification • 240 ft. field of view at 1000 yds. • 2.1mm exit pupil • 9.7oz..... **$29.99**

13-0430 *(right)* **LiteVision™** • 4x30 magnification • 650 ft. field of view at 1000 yds. • 7.5mm exit pupil • 7.5oz **$18.99**

13-1250 *(right)* **InstaFocus®** • 12x50 magnification • Porro prism • 265' field of view (1000 yds.) • 4.2 mm exit pupil • Adapts to tripod • 27oz... **$59.99**

13-2514 *(left)* Compact, folding binocular • 8x21 magnification • Roof prism • 375 ft. field of view at 1000 yds. • 2.6mm exit pupil • 7oz..... **$24.99**

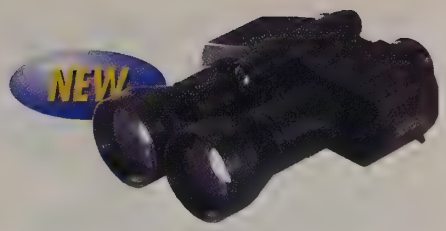
Falcon is feature packed and value priced. Perfect for sporting events, sightseeing, nature study, backpacking, concerts and theater. The line includes the Bushnell patented InstaFocus® focusing system, coated optics, carrying case and strap.



13-0721 *(right)* Compact binocular featuring 7x21 magnification • Porro prism • 340 ft. field of view • 3mm exit pupil • 4.7oz..... **$29.99**

13-3410 *(left)* **InstaFocus®** • 7x35 maginifcation • Porro prism • 420' field of view (1000 yds.) • 5mm exit pupil • Adapts to tripod • 21oz..... **$29.99**

We accept I.M.P.A.C.® Government Credit Cards



MISCELLANEOUS

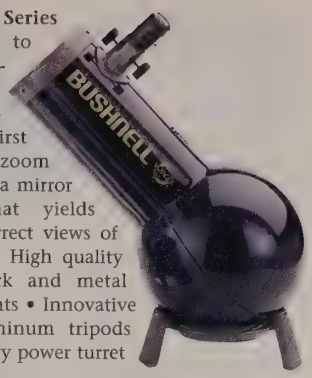
26-3150 **NightVision Binocular** (Generation 1) Great for wild-life observation, maritime navigation, security or camping. Built-in infrared illuminator for enhanced images in very low light. Powered by a single CR123A battery. • Magnification x objective lens: 3.1 x 50mm • Range: 1.5 to 400 ft. • 79 ft. field of view @ 100 yds • Includes tripod mount • 7.9" x 6.45" x 2.7", 40 oz.... **$459.99**

10-1907 **Speedster™ Speed Gun** Multi-functional, for all kinds of sports enthusiasts! Tracks miles, or kilometers, per hour of everything from pitching speeds, tennis serves and downhill racers to cars at the race track. Measures the speed of a baseball at 6-110mph from over 90 feet away and the speed of a race car from 6-200mph at over 1300 feet away. Displays current, last and average speeds. Tracks baseball statistics for up to 8 pitchers. Features highly legible, 4-row LCD graphics display, trigger and 2-way button pad **$199.99**

TELESCOPES

Professional Series of astronomical telescopes are engineered with unparalleled structural and optical quality. These top-of-the-line models will give many long years of reliable, dependable use and a lifetime of journeys to the stars. This series is highlighted by a professional quality format: Professional format 1.25" Kellner eyepieces • Aluminum optical tube assembly • High quality glass optic objectives • Full-length, heavy-duty, variable-height aluminum tripods • Clock drive ready deluxe metal equatorial mounting • Pro format 6x30 finderscopes • 6-point finderscope adjustments • Metal accessory trays • Pro counterweight system • Fine-adjustment controls.

78-0040 90 refractor • Focal length: 1,000 • 25 mm eyepiece • 40 magni. • Multi-coated objective lens • Flexible fine-tracking cables..... **$439.99**



Voyager® Series Engineered to exacting standards with exclusive features: the first astronomical zoom telescope • Penta mirror technology that yields right to left correct views of the night sky • High quality metal easy-track and metal equatorial mounts • Innovative adjustable aluminum tripods • Exclusive rotary power turret eyepieces.

78-2010 Penta mirror technology that yields right to left correct views • High quality metal easy-track and metal equatorial mounts • Exclusive rotary turret eyepieces • 100 x 4.5" reflector • Focal length: 500mm • 5 and 27mm Plossl eyepieces • Magnification: 18 and 100 • 1.25" format eyepieces • Precision rack and pinion focuser • Convenient shoulder strap • Pre-assembled cradle mount • Camera and tripod adaptability..... **$199.99**

78-9440 *(top)* 60mm refractor • Focal length: 700 • 8, 12.5mm eyepieces • Magni.: 56, 88, 168, 263, 280, 440 • Penta mirror, EasyTrack® mount • Adjustable hardwood tripod • Erecting lens .. **$89.99**

78-9470 *(bottom)* 60mm refractor • Focal length: 750 • Zoom, 8, 15mm eyepieces • Magnifications: 50, 94, 50-150, 250, 470 • Penta mirror • Easy Track® mount • Adjust. tripod **$129.99**

78-9675 *(middle)* 4.5" reflector • Focal length: 900 • 4, 12, 20mm eyepieces • Magnifications: 45, 75, 135, 225, 675 • Clock drive equatorial mount • Adjustable aluminum tripod • 6-point finderscope mount • Fine tracking..... **$229.99**

TELESCOPE ACCESSORIES

(See Price Guide to match access. to correct telescope model)

78-0101 1.25", 9mm Kellner eyepiece..... **$29.99**
78-0102 1.25", 25mm Kellner eyepiece... **$29.99**
78-0103 1.25" format erecting prism **$69.99**
78-0105 1.25" format 2x Barlow lens..... **$39.99**
78-0106 Clock drive (DC/battery power) **$89.99**

Secure
www.aesham.com

CELESTRON

TELESCOPES

11011 NexStar 8 All the standard features of the NexStar 5 with the addition of Schmidt-Cassegrain, 8" optics with Starbright multi-coating. Offers images twice as bright as a 5" scope. A four element multi-coated reducer/ corrector increases brightness to f/6.3 while reducing focal length by 37% for more wide field coverage. • 8" aperture • 2032mm focal length • f/10 focal ratio • Adjustable aluminum tripod • 1.25" Plössl eyepiece • StarPointer™ finderscope • AC adapter • 32 lbs. C/O **$1499.99**

11015 Celestar 8 Engineered for optical performance in an affordable, full-featured Schmidt-Cassegrain scope with large enough aperture to do serious deep-sky observing. Features: 8" (203mm) aperture • 2032mm focal length • f/10 focal ratio • 6x30 finderscope • Standard 1.25" accessories including 25mm SMA eyepiece (81x), Star diagonal and visual back • Fork mount & wedgpod • 41 lbs C/O **$1099.99**

Take the best of the NexStar 5 and 8 to the next level with the 5i and 8i. Equipped with the electronic hand control, they allow manual slew across the sky in seconds or tracking of a star as the Earth rotates. The control also offers movement of the scopes at six different rates and has a "double button" feature to increase slew speed without changing rates. Put the power of the newest software and expanded 40,000 object database to work with the optional computerized hand control. Capable of becoming fully automatic GPS scopes with optional GPS accessory and computerized hand control.

11033 NexStar 5i Standard features include • 5" (127mm) diameter, 1250mm focal length, f/10 focal ratio • 60°/sec. slew • Fully enclosed HD high speed motors • Battery compartment for 8 AA's • Starbright™ coated, Schmidt-Cassegrain optics • Multi-coated, 1.25"/25mm Plössl eyepiece (50x) • StarPointer finderscope • 1.25" star diagonal • Auto-Guider port • Auxiliary port for accessories • Heavy-duty base with rubber feet **$899.99**

11021 NexStar 8i Same features as 5i with • 2032 mm focal length, f/10, 8" (203mm) dia. • Multi-coated, 1.25" Plössl eyepiece (81x)..... **$1199.99**

11032 NexStar 5 Easy set-up – no polar aligning. Using the hand control, select a catalog, change the slew rate, get information on an object, or simply tell if an object is visable. The NexStar's database contains over 18,000 objects including all popular catalogs. Comes with regular tripod. • 5" (127mm) aperture • Focal length of 50" (1250mm) • f/10 ratio • 6x30 finderscope • 25 mm Plössl eyepiece • 25x camera • Schmidt-Cassegrain optics • Battery-operated motor drive • 11" optical tube • 17.6 lbs... Closeout **$1049.99**

11051 G-5 Ultraportable telescope with U.S.A. made optics. Serious performance, razor sharp images. Single axis motor drive operates on four D-cells and allows automatic tracking. • 5" (127mm) aperture • 1250mm focal length • f/10 ratio • 6x30 finderscope • 25mm (50x) SMA 1.25" eyepiece • 1.25" eyepiece • 1.25" 90° diagonal • Multi-coated Schmidt-Cassegrain optics • Battery operated motor drive • Adjustable German EQ mount • 24 lbs **$749.99**

11052 NexStar 8 GPS The ultimate in "go-to" technology and astro-imaging, this 8" Schmidt-Cassegrain boasts an integrated GPS and electronic compass, combined with the NexStar™ system. So advanced, as it turns on, GPS and compass system automatically points to the first alignment star. Auto guider port • 2 auxiliary ports for expandable accessories • PC port/RS232 compatible • GPS align mode • 2000mm focal length (f/10) • 5-step multi-layer StarBright® coatings • 40mm NexStar Plössl (50x) • 9x50 Finderscope • Fastar compatible • External 12V DC • AC adapter **$2499.99**

11053 NexStar 11 GPS A large aperture telescope with carbon fiber tube and integrated GPS and electronic compass. When turned on, the GPS and compass system automatically pinpoints exact location and points to the first alignment star. The NexStar offers a 40,000+ object database and storage for numerous, user-defined objects. It also features database filter limits for creating custom object lists. Constructed with dual aluminum fork arms with carrying handles and a receptacle for the computer go-to tracking control. 279mm (11") dia. Schmidt-Cassegrain • 2800mm focal length • f/10 ratio • Premium 40mm (70x) 1.25" Plössl eyepiece • 9x50 finderscope • 9 slew speeds • Star diagonal • Visual back • RS232 and multiple data ports • AC adapter • Adjustable, heavy-duty, 26-pound tripod • 65 lbs... **$2999.99**

22062 NexStar 60GT Views of the lunar landscape, phases of Venus, Mars resolved as a disc, Jupiter and its moons, Saturn with its rings plainly visible, some deep sky objects, plus terrestrial views. Comes with a fully-computerized hand control with database of over 4,000 objects. Includes three 1.25" eyepieces (35x, 70x and 175x). With a pre-assembled, adjustable tripod, the 60GT can be up and ready in a matter of minutes. A StarPointer finderscope with red LED makes centering easy. • 60mm (2.4") dia. refractor • 700 mm focal length • f/12 ratio • 1.25" star diagonal • *The Sky* Level I CD-ROM • 9.5 lbs..... **$249.99**

22082 NexStar 80GT With an 80mm aperture and 3.25° field of view, the 80GT is capable of capturing the largest deep-sky objects. 80% brighter views than 60mm. This short-tube, 400mm focal length, refractor telescope has 16x (25mm) and 40x (10mm) magnification, 1.25" SMA eyepieces. • 80 mm (3.1") dia. • f/5 ratio • "Go-to" computer hand control • StarPointer™ finderscope • 1.25" star diagonal • *The Sky* Level I CD • Adjustable aluminum tripod, accessory tray • 11 lbs..... **$349.99**

31034 Tabletop 76 Small, but powerful, this ultra portable telescope is ideal for traveling & quick set-up. The handy but sturdy table top mount provides steady viewing. • 76mm (3") aperture • 600 mm focal length • f/8 focal ratio. Standard 0.96" accessories include: 4mm SR (150x), 20mm H (30x) and 2x Barlow eyepieces • 5x24 right-angle Finderscope • 5 lbs **$99.99**

31044 Firstscope 114 High quality, telescope featuring an optical system for bright, detailed views. The highly stable equatorial mount (CG-3) has setting circles and slow motion controls on both axes providing smooth, easy tracking. Built to provide years of performance, it comes with adjustable, aluminum tripod and accessory tray. • 114mm (4.5") diameter aperture • 900mm focal length • f/8 ratio • StarPointer™ finderscope • 20mm (45x) and 10mm (90x) Kellner eyepieces • 1.25" focuser • 35" optical tube • Enhanced aluminum optical coatings • 1.5" rack and pinion focusing • 45 lbs..... **$249.99**

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

CELESTRON®

31058 G-8N A Newtonian reflector telescope with exceptional optics and a heavy duty mount with slow motion controls and setting circles for both axes. Heavenly sights come into view clearly and track easily. Comes complete with adjustable aluminum tripod and accessory tray. • 203mm (8") dia. • 1000 mm focal length (f/5) • 9 x 50 finderscope • Equatorial mount • Enhanced optical coatings • 20mm Plössl eyepiece • 20" optical tube length • 2"-1.25" rack and pinion focusing • 61 lbs..... **$449.99**

31056 C150-HD Mounted on a rigid CG-4 equatorial mount. Counter-weight, latitude scale, setting circles and slow motion controls on axes are standard. • 150mm (6.0") aperture • 1000mm focal length • f/7 focal ratio • 1.25" accessories include: 20mm Plössl eyepiece (50x) and focuser • 6x30 finderscope • CG-4 EQ mount • Adjustable metal tripod, accessory tray • 41 lbs..... **$399.99**

31142 NexStar 114GT Computer compatible Newtonian reflector with a compact design and exceptional light-gathering ability. • 114 mm (4.5") diameter • 1000mm focal length (f/9) • Starpointer™ finderscope • 25mm (40X) and 10mm (100X) SMA eyepieces • Motorized mount • Computerized hand controller with "go-to" database. Includes *GuideStar*™ software to use with your personal computer, fully assembled adjustable aluminum tripod, battery pack and *The Sky Level 1* CD-ROM ... **$439.99**

LAB GRADE MICROSCOPES

4020 Dissecting Microscope This provides an introduction to the world of micro-scopy. It uses a 45° inclined, 360° rotatable monocular head which can move up and down on the metal pillar for small or large item viewing. The eyepiece is a 10x-18mm with a 4x-58mm objective, giving 40x power. The all-metal unit comes with a 60mm black-and-white viewing plate and smooth rack and pinion focuser **$79.99**

4030 Educational Microscope Feature-packed and a great educational tool. It has a fully coated optical system, with H10x and H12.5x eyepieces and 35mm 4x, 10x, 40x objectives giving powers of (40x, 100x, 400x) 10x and (50x, 125x and 500x) 12.5x. This unit uses positive click stops on the turret, a five aperture diaphragm, a plano-concave 50mm mirror, and a smooth rack and pinion focuser with a safety rack stop..... **$119.99**

4050 Biological Microscope Using fully coated optics, with a mechanical tube length of 160mm, its achromatic objective promises great observing sessions. The unit has a monocular 45° inclined, 360° rotatable head, positive click stop nosepiece with three objectives, 4x, 10x, 40x, a metal 110mm x 120mm stage and a five aperture diaphragm. It uses coarse and fine focus with electrical illumination with a tungsten 20w bulb and .65 single lens condenser. Powers are 40x, 100x and 400x using the 10x eyepiece **$199.99**

We accept I.M.P.A.C.® Government Credit Cards

SPOTTING SCOPES

50025 30mm Mini Brass Scope A unique, lightweight and versatile spotting scope with a magnification of 15x and total weight of just 4 oz! This special scope has an attractive black finish with brass accents and comes with a mini tripod. Fully coated optics, remarkable 3.5° field-of view. For traveling, this ultra compact spotter comes with a case for secure transporting. It also makes an excellent gift for tabletop or desk display **$59.99**

52200 *(top)* **60mm Pro Zoom Spotting Scope** This powerful spotting scope's large 60mm aperture makes it perfect for bird watching, photography, nature study, hunting or scenic observing. Carefully crafted, multicoated optics provide excellent contrast and clarity, and the standard lens hood reduces glare. Zoom and focus controls are exceptionally smooth, convenient and easy to use. The ability to zoom from 15 to 60 power with speed and precision means you'll be able to focus on and follow interesting subjects with ease. • 24' near focus at 15 power • 15mm eye relief at 15 power • 30° field of view at 15 power **$199.99**

52211 *(bottom)* **60mm Wildlife Zoom Spotting Scope** A great all-around optic designed to perform well in a range of viewing situations. Great for bird watching, observing nature and long distance spotting. The focus and zoom controls are easy to use and well placed for fast, convenient image acquisition. It offers long eye relief of 33mm at 15 power. With fully coated lenses, it's totally reliable and an excellent performer. • Power range that zooms from 15 to 45 power • Near focus: 42' at 15 power • Field of view: 2.25' at 15 power • Mini table tripod and carrying case included • 25 oz..... **$169.99**

AMATEUR ELECTRONIC SUPPLY
5710 W. GOOD HOPE ROAD.
MILWAUKEE, WISCONSIN 53223
(414) 358-0333

NO. 0000

DATE _____ 19____

THIS CERTIFICATE _____

TO MERCHANDISE _____

VALUED AT _____ DOLLARS $_____

PRESENTED BY _____

AUTHORIZED SIGNATURE

Gift Certificates For the Undecided

Look For This NEW & Check Out AES' Latest Additions.

MEADE

TELESCOPES

0705-04-01 ETX-70AT **70mm Achromatic Refractor** Excellent portable for beginners. Observe major planets easily. Also great for birdwatchers or naturalists. • 2 eyepieces (MA 9mm/39x and MA 25mm/ 14x) • Multi-layer coated, achromatic optical tube assembly (D=70mm, F=350mm f/5) • Internal flip-mirror system for either straight or 90° observing • Fork mount with electric slow motion controls, setting circles and locks on both axes • Electronic control panel • 9-speed, dual-axis motor drive system with Autostar™ control • Sidereal-rate tracking • Requires 6 AA's • Includes #882 tripod • 7 lbs..... **$319.99**

3514-03-04 ETX-90EC **96mm Maksutov-Cassegrain** *(left)* The perfect ultraportable field telescope. • 8x21mm erect-image viewfinder • Series 4000 Super Plossl 26mm eyepiece (1.25") • Super multi-coated optical tube assembly (D=90mm, F=1250mm f/13.8) • Internal flip-mirror system for straight or 90° observing • Fork mount with electric slow-motion controls, setting circles and locks on both axes • Electronic control panel • 4-speed (8x, 32x sidereal, 0.75°/sec, 5°/sec), dual-axis motor drive system with electronic hand controller • 8 "AA" batteries required • 9.2 lbs..... **$495.99**

0515-03-01 ETX-125EC **138mm Maksutov-Cassegrain** *(right)* Same as above, but with larger optical assembly (D=127mm, F=1900mm f/15) and 8x25mm right-angle viewfinder. • 19 lbs **$895.99**

20201 NGC-60 **Refractor** New Generation offers an improvement in design. Includes built-in AutoStar computer control system and manual slow-motion controls. • 60mm (2.4") diameter, f/11.7 ratio, 700mm focal length • Self-guided "go-to" control system offers 1400-object database • Altazimuth mount with slow-motion control (oversize bearings on both axes for greater stability and precision) • MA25mm and MA9mm 1.25" eyepieces • 5 x 24mm viewfinder • Hybrid diagonal • StarNavigator software • Adjustable sliding aluminum tripod with accessory shelf • Requires 2 AA batteries (not included)..... **$199.99**

20117 DS-2114-ATS **Reflector** The Meade AutoStar control system has the commanding lead in automated telescope technology. Control system includes AutoStar with 9-speed controller and "go-to" capability to any of over 1400 celestial objects. Includes internalized motors, cords, gears and battery compartment (requires 8 AA batteries). • 114mm (4.5") diameter • f/8.8 ratio • 1000mm focal length • 2" focuser • New streamlined, single-tine fork altazimuth mount provides smoother more rigid motions in altitude and azimuth • MA25 mm and MA9mm 1.25" eyepieces • 1.25" and 2" eyepiece holders • 6 x 30mm viewfinder with rubber eyecup • StarNavigator software • Quick release adjustable aluminum tripod **$399.99**

20117/20201 TELESCOPE ACCESSORIES

07137 Plössl 5mm (1.25") O.D. eyepiece. **$59.99**
07139 8mm WA (1.25") eyepiece **69.99**

BINOCULARS

CVB-1001 **CaptureView Integrated Binocular & Digital Camera** A versatile 8x22 compact binocular with an integrated 640x480 resolution digital camera for anyone who wants to view, and digitally capture, the action up-close. The camera captures the image in the 8-power view of the binocular. Automatic exposure and focus-free settings makes it easy to snap sports, racing events, or distant wildlife. Download images to a PC to be edited, printed, and e-mailed. Includes USB cable, carry case, strap, instructions, image capture and editing software. • 4.5" x 3.5" x 2.2", 6.4 oz • **Binocular:** 700' field of view @ 1000 yds. • 2.8mm exit pupil • **Digital Camera:** 8° field of view • f/5.6 • Range 49.2' – infinity • 8Mb memory • Uses 3 AAA batteries (not included)..... **$99.99**

Look For This

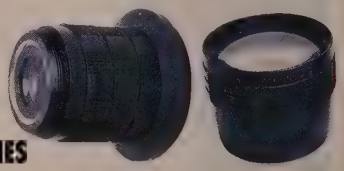
& Check Out AES' Latest Additions.

We accept I.M.P.A.C.® Government Credit Cards

NOCC-3 **Cyclops Compact™** At 16 ounces, the NOCC3 compact Night Vision monocular boasts a powerful integrated infrared illuminator in one of the lightest body styles available. With easy to operate power and IR controls, both with indicator lights, the NOCC-3 is equipped with a 42mm magnification for quality nocturnal viewing. • Image Tube Gain: 15,000 • Magnification: 3.1 • FOV @ 1000 yards: 628' • 575' range of view • Focusing range: 8' to infinity • Power: 2 "AA" batteries • 7.2" x 2.4" x 3.2" • 16 oz **$199.99**

NODS-5 **Night Owl Discovery Pro™** A full-sized night vision monocular with the highest-grade 48mm camera quality objective lens providing unsurpassed resolution for distant visibility. The NODS-5 features an integrated infrared illuminator encased in an attractive, ergonomic body. Equipped with soft-touch controls, power and IR indicators and a tripod mount. • Range of view: 650' • Magnification: 5X • 80mm focal length • 524' FOV @ 1000 yards • Focus range: 10' to infinity • Uses 2 AA batteries • 7.6" x 3.4" x 2.9" • 1.5 lbs **$299.99**

NOXG-2 **Explorer G2™** Cutting edge, with a technologically advanced night vision intensifier tube. Gives superior brightness and performance in low light conditions, and up to 2,300' long range of view. Compact, 100% waterproof – floats! Equipped standard with a powerful integrated infrared illuminator. • Range of view: 2,300' • Magnification: 3.0X • Field of view: 612' @ 1000 yards • Focusing range: 8' to infinity • Uses 3V lithium battery • 6.8" x 2.3" x 3.3" • 1.3 lbs..... **$999.99**



ACCESSORIES

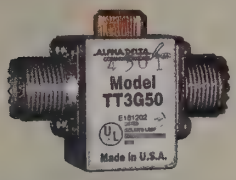
NOCA-42 **Camera Adapter™** *(left)* Allows photography with 35mm SLR cameras. Replaces rear ocular lens. Requires opt. T-mount adapter **$49.99**

NOLD-20 **Lens Doubler™** Increases the magnification on the NOCC-3 enabling close-up viewing in the dark. Fits in front of objective lens..... **$49.99**

It Doesn't take a DIRECT HIT!

Dangerous static charges measuring 1000s of volts can be developed from local thunderstorms, high wind driven snow or sand, so potent they can actually puncture the dielectric of coaxial cable. Solid-state transceivers and other equipment in your hamshack are very vulnerable to these high-voltage charges so you should take every precaution to protect your equipment and shack from possible serious damage and, ALPHA DELTA has the answer!

Special Arc-Plugs are used in ALPHA DELTA's Coax Switches, Surge Protectors and DELTA-C Center Insulator which "bleed off" slow rising static electricity charges from the feed line, routing them harmlessly to ground. This is far more effective than DC grounded baluns or chokes. But, even as effective as these devices are, you still need to pay attention to proper grounding procedures as outlined in the ARRL Handbook and other technical publications.



Lightning Surge/EMI Protectors

UL LISTED – Certified protection for your equipment from lightning and static charges much more effectively than low-cost air-gap types.

The heart of this protector is an Arc-Plug™, two electrodes hermetically sealed in a gas filled ceramic cylinder. Acting like a voltage dependent switch, the Arc-Plug™ can repeatedly carry large currents for brief periods of time. If an excessive voltage appears on the feedline line, due to lightning or static charges, the Arc-Plug™ is energized, forming a momentary arc and discharge to ground which protects your valuable equipment from damage.

After repeated zaps, the Arc-Plug™ may need replacing as indicated by an increased VSWR or reduced receive signal strength. A top mounted "O" ring sealed knurled knob allows easy access and replacement of the Arc-Plug™ without tools.

If you are running control voltages through the coax, the impedance compensated thru-line cavity design allows it to pass thru, instead of having to "wire around" as with some other *DC-blocked* designs.

Wide Frequency Range: DC thru 3 GHz, much wider than narrow band DC blocked or stub designs.

Low Insertion Loss: 0.1dB @ 1 GHz, 0.2dB @ 2 GHz, and only 0.5dB @ 3GHz, typical.

4 Models:

ATT-3G50* has Type-N females connectors, rated up to 3.0 GHz and 200 Watts **$59.99**

ATT-3G50U* has UHF female connectors, rated up to 500MHz and 200 Watts **$49.99**

**2000 Watt version available at No Extra Cost.*

Specify ATT-3G50HP or ATT-3G50UHP

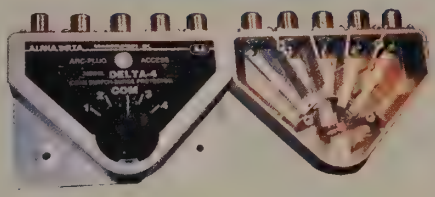
Antenna Insulator Kit with Protection

Highest quality Center and End Insulators, ideal for all types of wire antennas using either coax or balanced feed line, and up to full legal power. Made from an extremely rugged UV and RF resistant material that is virtually unbreakable. Stainless steel hardware used in the center insulator, and all internal connections are hard soldered. A built-in replaceable Arc-Plug™ provides surge protection.

DELTA-C Antenna hardware kit **$29.99**

DELTA-CIN End-insulator, only.....each **$1.99**

Lightning Surge Protected Coaxial Switches



DELTA Features:

- High Quality custom design featuring a rugged Cast Aluminum Housing.
- Constant impedance micro-strip cavities that provide very low-loss and high isolation through the UHF frequencies.
- Rated for Full Legal power.
- A solid positive detent roller bearing switch snaps positively into each position.
- An Alpha Delta Arc-Plug™ Cartridge provides continuous surge protection. If needed, it is easily replaced from the front without disassembly.
- Automatic grounding of the unused antennas to reduce antenna interaction, noise and the effects of lightning.

4 Models:

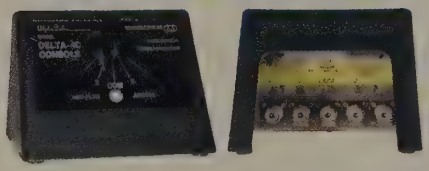
DELTA-2 2-position, with SO-239 connectors and rated for operation up to 500MHz **$49.99**

DELTA-2/N 2-position, with N-type connectors, rated for operation up to 1.3GHz..... **$64.99**

DELTA-4 4-position, with SO-239 connectors, rated for operation up to 500MHz **$79.99**

DELTA-4/N 4-position, with N-type connectors, rated for operation up to 1.3GHz **$89.99**

Lightning Surge Protected Console Coax Switches



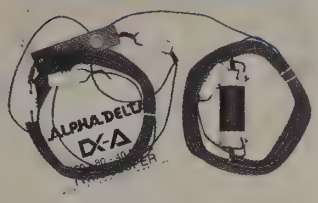
- The switch mechanism and features are the same as in the DELTA-4 models above.
- Built into a heavy 3/16 inch thick cast aluminum console weighing a hefty 2-3/4 lbs.
- The attractive, no nonsense design sits conveniently right on the operating desk and stays put.

2 Models:

DELTA-4C Console with SO-239 connectors, rated for up to 500MHz..... **$139.99**

DELTA-4CN Console with type-N connectors, rated for up to 1.3GHz **$149.99**

Limited Space Slopers

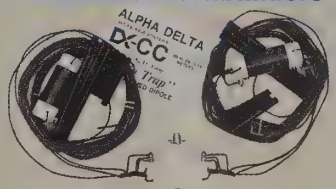


- Proven 1/4 -wave sloper DX Performance
- Alpha Delta "ISO-RES" inductors replace lossy traps and capacitors, handles Full Legal Power.
- Factory assembled using insulated #12 copper wire, stainless hardware and 50 ft. of nylon rope.
- Direct 50Ω coaxial feed, no tuner required. See our web site for sloper installation requirements.

DX-A A top performing 1/4-wave Twin Sloper 160, 80 and 40 meter DX antenna. Combines the DX firepower of the 1/4-wave sloper with the wide bandwidth of a 1/2-wave dipole. Installs like an Inverted-V. The length of the legs are only 67 ft. and 55 ft. long **$59.99**

DX-B A single wire high performance 1/4-wave DX Sloper with for 160, 80, 40 and 30 meters. Limited space. installation requires only 60 ft. of space for amazing DX performance with the feed-end at 35 ft. and the low end only 8 ft. above ground **$69.99**

Shortened Multibanders



- Alpha Delta "ISO-RES" inductors replace lossy traps and capacitors • Full Power operation
- Direct 50Ω coaxial feed, no tuner required except for extended frequency coverage.
- Factory assembled with insulated #12 copper wire, stainless hardware and 50 ft. of nylon rope.
- Uses a DELTA-C Static Protected center insulator and DELTA-CIN end insulators.
- Install Horizontally of as an Inverted-V.

5 Models:

DX-CC Covers 80-40-20-15-10M, 82 ft. long...**$119.99**

DX-DD Covers 80-40M, 82 ft. long..... **$89.99**

DX-EE Covers 40-20-15-10M plus 30-17-12M using a wide range antenna tuner, 40 ft. long **$99.99**

DX-LB 160-80-40M, 100 ft. long. Typical bandwidth for 2:1 VSWR: 160M-20kHz, 80M-40kHz, 40M-300kHz. Full coverage using a wide range antenna tuner.....**$119.99**

DX-LB PLUS 160-80-40-20-15-10M. Same as DX-LB above, but adds 20-10M with parallel wires... **$149.99**

Full-Size Monoband Dipoles

- 50Ω coax feed, full power
- Install Horizontally or as an inverted V
- Factory assembled with #12 insulated copper wire, DELTA-C static protected center insulator, DELTA-CIN end insulators and 50 ft of nylon support rope.

3 Models:

DX-80 75/80 meters, 134 ft. long..... **$49.99**

DX-40 40 meters, 67 ft. long **$39.99**

DX-20 20 meters, 34 ft. long **$39.99**

ALPHA DELTA COMMUNICATIONS, INC. AA

alphadeltacom.com

OUTbacker The Performance Antenna

We Make it Simple ... But GOOD!

Most mobile antenna installations are notoriously inefficient and complex to install. Some are so big and cumbersome, they need guy ropes and special mounts to handle the wind load when under way. Some are single band only, others need a bag full of resonators for multi-band operation. Whips with automatic tuners or "screwdriver" types are nice, but even more cumbersome to install, usually requiring extra wiring and a controller.

The OUTBACKER eliminates these "big antenna" problems while providing efficient, multi-band performance in a rugged, lightweight, single whip design. Its sleek, low profile design allows use with standard 3/8-24 bases and trunk-lip mounts.

Fiberglass shaft construction, using a pre-tuned copper helical winding with clearly marked brass band taps at points along its length. A final coating of smooth epoxy resin and polyurethane, gives the OUTBACKER a toughness and durability not found in other brands, while making a really good looking mobile installation.

Changing bands is a snap; simply plug into the desired band tap and resume operating without changing whips, resonators, or re-tuning.

MODEL	BANDS	POWER	LENGTH	PRICE
OB-8	75-10M + WARC	300W P.E.P.	6 ft.	**$279.99**
OB-8HP (HIGH POWER)	75-10M + WARC	500W P.E.P.	6 ft.	**$299.99**
OB-S8*	75-10M + WARC	300W P.E.P.	6 ft.	**$299.99**
*Breaks down into two 3 ft. sections, includes a cloth carrying pouch				
OB-8TRI Same as OB-S8 except it breaks down into three 2 ft. sections, pouch included				**$329.99**
PERTH*	75-10M + WARC	150W P.E.P.	7.5 ft.	**$289.99**
*The Most Efficient model for HF Mobile				
PERTH PLUS*	75-10 + 6/2M + WARC	150W P.E.P.	6 ft.	**$299.99**
*Perfect for HF Radios with added 6 & 2 meter capability				
STEALTH PLUS*	75-10 + 6/2M + WARC	100W P.E.P.	4 ft.	**$269.99**
*Perfect for HF Radios with added 6 & 2 meter capability				
OUTREACH*	160-10M + WARC	300W P.E.P.	12 ft.	**$399.99**
OUTREACH 500*	80-6M + WARC	600W P.E.P.	12 ft.	**$439.99**
*OUTREACH and OUTREACH 500 perfect for use with the OUTPOST, below				
OB-M*	Marine/HAM*	300W P.E.P.	6 ft.	**$429.99**
*Marine: 2.182, 4.1, 6.2, 8.2, 12.4, 16.5, 22 MHz • HAM: 75, 40, 20, 17, 10M				
Joey New for the FT-817 and other QRP rigs – full description at right				**$249.99**

the OUTBACKER Joey
Portable Antenna

Added performance for the FT-817 and other QRP rigs

- Utilizes the famous OUTBACKER band tap system for the ultimate band changing convenience
- Covers complete HF/VHF range from 80 thru 2M, including 30, 17 and 12M
- Separate taps for 80 CW and 75 SSB
- Rated at 20W, all modes.
- The antenna has a 30 in. body and a 20 in. stinger when fully extended.
- Complete with a 12 ft. durable copper braid counterpoise, and a custom anti-twist 90 degree SO-239 to PL259 adapter.
- Weighs just over 1 lb **$249.99**

Change bands by changing the tap!

ALPHA DELTA OUTPOST
Tripod Mount / Ground Coupler

- A convenient method of utilizing OUTBACKERS for Base/Portable operation.
- Compact, fold-up design sets up quickly and collapses in seconds; no holes, no concrete!
- 36 x 3 in. blades on each leg unfold and lie flat providing increased ground coupling for a better impedance match and increased radiation efficiency.
- A mobile-type mount on top accepts a 3/8" x 24 antenna stud and PL-259 connector.
- A fold-over top bracket, allows the antenna to be easily removed or folded down for changing bands, or to be out of view.
- Rugged 6061-T6 aircraft aluminum members,18 lbs. Stainless steel hardware and wing nuts, comes all assembled.

$199.99

ALPHA DELTA
MicroMount

Lightweight Miniature Desktop Tripod

- Ideal for the Joey!
- 8 in. tall (fixed), 12 in. footprint
- Adjustable pan head mount
- 12 ft. counterpoise
- 12 in. velco strap or securing to various objects.
- Collapses for convenient portability.

$49.99

alphadeltacom.com

*Path*FINDER *DIGITAL* Automatic Antenna Tuner

$399.99

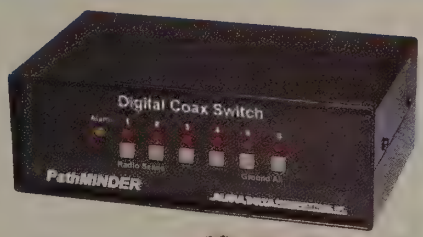
No More "Fiddling" with a Manual Tuner. The PathFINDER seeks the Correct "Path" to Proper Antenna Tuning and Does it Automatically with Digital Readout.

- Matches ALMOST anything!
- Continuous coverage tuning: 1.8 to 30 MHz plus 6 meters.
- Perfect for Amateur, MARS, Government and Military!
- *Fully Automatic!* – everything runs under Microprocessor Control!
- Switched L/C combinations – tuning time: 3 to 4 seconds
- 200W RF power rating
- Use more antenna types, and tune a much wider bandwidth than with typical built-in transceiver tuners and many manual tuners.
- Handles up to a 10:1 VSWR on HF and 3:1 on 6 meters
- Matches 50Ω unbalanced output from your transceiver to 6 to 800Ω unbalanced, and long wires or balanced line from 24 to 3200Ω.
- One input, two outputs – coax and stand offs for wire or ladder line, all push button selectable
- Built-in precision Digital Meter simultaneously shows Peak or Average RF Power, VSWR, and all tuner functions.
- Audio responses for SWR for the visually impaired!
- All metal case, 7-1/2"h x 11"w x 2.5"d, 5.5 lbs
- Operation requires 12 VDC @ 1 amp.

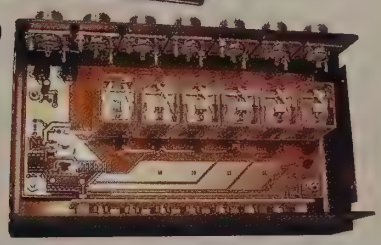
NEW! *Path*MINDER *DIGITAL* Automatic Antenna Switch

Nothing like it Before!

The *Path*MINDER is a six position, Microprocessor Controlled Coaxial Switch with *soft-touch* front panel buttons that provide antenna selection via internal high power relays. An internal microprocessor monitors the system to ensure maximum relay and equipment protection by activating a flashing "alarm" LED and not allowing *"hot switching"* at power levels above 10W. The microprocessor also monitors a radio sensing input circuit and will automatically ground ports when the radio is turned off or there is a loss of DC power. Three programmable operational modes provide the ultimate in station protection.



$139.99



- Coax Positions ..... six
- Connectors ..... SO-239 (UHF) type
- RF Power Handling Capability ..... 1.5 KW
- Frequency Range ... 1.8 to 54 MHz, <0.5dB loss
- Isolation ..... >50dB
- Grounding Modes: "Ground all" and "Ground all except position six"
- Radio Sensing Modes: "Ground all," "Ground all except position six," and "OFF" (Default)
- Radio Sensor Interface: 1.5 to 20 volts, 1 mA, supplied from radio when radio is "on" or main power supply
- Red and Yellow LED indicators
- Power Requirement .....11 to 15 volts, 250 mA

KENT Paddles by ALPHA DELTA

- Delicate, smooth feel due to sealed ball bearings instead of simple spring-loaded pivots. Free movement with minimum friction and side play.
- Silver contacts with precise gap alignments with instrument knurled heads on fine pitched screws and and secured with locking nuts.
- Rugged components made from machined, polished solid brass contained within a permanent brass housing.
- Non-slip feet, and weighted for stability; paddle models use heavy steel bases.
- Designed and produced by R.A. Kent Engineers, England, imported, fully assembled and tested by Alpha Delta.

Model **SK-1** Straight Morse Key (top) **$129.99**
Model **SP-1** Single Paddle Morse Key (bottom/left) **$139.99**
Model **TP-1** Twin Paddle Morse Key (bottom/right) **$149.99**

MFJ ENTERPRISES, INC.

HT RANGE EXTENDERS

1714 Long Ranger™ 2M Halfwave For really long range, this MFJ end-fed half-wave is hard to beat. It out performs a 5/8 wave on a handheld because it does not need a ground plane. The 1714 is shorter (40" extended), lighter, has more gain & places less stress on your antenna connector. When collapsed (10.5"), it performs like a rubber duck ... **$16.99**

1712 Dual Bander™ 2M and 440MHz New dualband handheld or separate units? One antenna fits all. It's 1/4 wave for 2m and 5/8 wave with gain for 440MHz. 7.25" collapsed, 19" extended..... **$14.99**

1710 Pocket Linear™ 3/8 Wave, 2M Carry in your pocket like a ballpoint pen. When using your rubber duck, on the fringe and noisy, put on the Pocket Linear, extend to 24.5" and carry on your QSO. Pocket clip. 5.25" collapsed..... **$9.99**

RUFFRIDER™ MOBILE ANTENNAS

(mounts not included)

This series features quality construction using precision machined components. Designed to battle the elements, rugged rides and highway abuse.

Dual band 144/440MHz mobiles have stacked stainless steel elements with high-Q phasing coils resulting in outstanding gain. Phased radiators flatten radiation patterns and concentrate transmit power at the horizon for maximum distance.

All models are factory tuned for SWR less than 1.5:1 and have 50Ω impedance. Each comes w/SO-239 base, but also includes a **FREE** NMO adapter.

1402 Junior 16.5" antenna fits in any garage on any vehicle. Unity gain on 2M, 3dB gain on 440 MHz. Handles 100W. No fold-over **$34.99**

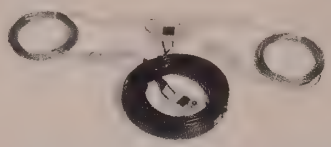
1412 High Power Only 40" long but handles a full 200W. Great for high power mobile & amp. 3dB on 2M, 5.5dB on 440MHz **$49.99**

1422 High Gain 41.5" long giving you extra gain with little increase in height. Handles 150W. 3.2dB on 2M, 5.7dB on 440MHz..... **$49.99**

1432 Highest Gain Tall 62.5" brute gives you a whopping 5dB gain on 2M, 7.6dB gain on 440MHz. Handles 150W..... **$69.99**

1622 Apartment Antenna *(top)* Operate 40–10M, 6M and 2M, up to 300W P.E.P. Tuning is accomplished by changing the tap on the highly efficient air-wound coil and adjusting the counterpoise for best SWR. Its universal mount/clamp lets you easily attach it to window frames, balconies and railings. It also works great indoors mounted to a desk, table or bookshelf. The 5.5' radiator collapses to 2.5' for easy storage and carrying. It includes 50' of coaxial cable, RF choke balun, 50' of coax, counterpoise wire and safety rope..... **$89.99**

1624 HF Mini Bugcatcher Operate 40–6M, up to 300W P.E.P. Tune by changing the tap on the efficient air-wound coil and adjusting the counterpoise for best SWR. The 5.5' whip collapses to 2.5' for storage/garage. Use trunk lip, mirror, luggage or tri-mag mount **$79.99**



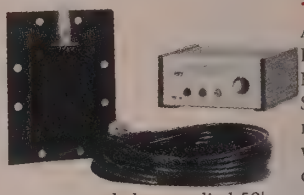
1778 MFJ's G5RV Antenna Covers 80–10M bands and 160M operated as a Marconi with a tuner and ground connection Shorter that an 80 meter dipole – 102 ft. long. flat top with a length of twin-lead matching section. Requires 50Ω coaxial feed line. Use as an inverted vee or sloper where space is a problem. Full legal power limit. Coax cable not included **$39.99**

1910 Telescoping Fiberglass Mast *(right)* Great for portable and temporary use – traveling, camping, hotels, hamfests, field day, DX-peditions. Use to construct loops and quads. Pull out each section and twist to lock, strong fiberglass, flexes to resist breaking. Extends to 33' and collapses to 3.8' Bottom section 1.75" diameter. 3.3 lbs **$79.99**

1899T Walkabout™ Multi-band Telescopic Antenna Designed specifically for the Yaesu FT-817 multi-mode HF/VHF/UHF portable transceiver or other QRP portables. Covers all bands (including WARC bands) from 80 to 6 meters. Power rating is 25 Watts. When fully extended it is just over 5' long and is fitted with a BNC connector. Band changing is achieved by plugging a lead into the appropriate socket on the base coil, and fine tuning using the 10-section telescopic whip. The whip unscrews from the base matching coil, so, collapsed, the antenna measures only about 8 inches **$129.99**

We accept I.M.P.A.C.® Government Credit Cards

1020C Indoor Active Antenna 300 kHz–30MHz; 5 bands. Telescoping (21") antenna provides good signal strength. Functions as a preselector when using an external antenna – minimizes intermod, improves selectivity, reduces noise. Uses 9V battery, 9-18V DC or 110V. 5"w x 2"h x 6"d..... **$79.99**



1024 Outdoor Active Antenna For 50kHz to 30 MHz reception. Separate RF amp module with 54" whip mounts outside, interconnect made by supplied 50' coax to control unit, containing gain control and 20dB attenuator. Select between 2 receivers & auxiliary antenna. Auxiliary in/output jacks. 12VDC or 110VAC. Control: 6"w x 2"h x 5"d, Module: 3"h x 4"w x 4"d..... **$129.99**

Secure
www.aesham.com

Lakeview Co., Inc.

WD4BUM HAMSTICKS® Two-Piece Monoband Mobile Antennas Hamstick 75 thru 10 meter models consist of a 47 inch long x 1/2 inch diameter fiberglass base section with the loading coil wound over its length and covered with black PVC shrink tubing. It's fitted on one end with a 3/8" X 24 brass base fitting that fits most amateur mobile mounts. A black 48 inch tempered stainless steel whip telescopes into the top of the base section and provides for frequency adjustment. The 6 meter model has a 34 inch base section and whip. Convenient frequency vs length graphs are included with the instructions.

If the antenna shows a SWR of 1.5 to 1 or better, no matching should be necessary. However, if it is, which may be especially true on 40 and 75m, you can capacitively match the base using values recommended in the instructions. If you frequently change bands you can use the **WD4BUM INDUCTI-MATCH (IM-1)** which consists of an impedance matching coil that simply installs at the base of the antenna. Using the supplied clip lead, you just tap up the coil for the best match.

Models

9106 (6M)	**9110** (10M)	**9112** (12M)
9115 (15M)	**9117** (17M)	**9120** (20M)
9130 (30 M)	**9140** (40M)	**9175** (75M)

All Hamsticks ..... each **$24.99**

901 Dipole Mount for 2 Hamsticks **14.99**
IM-1 Inducti-Match **17.99**
TM-1 License Plate Mount 3/8" x 24... **44.99**
TM-1 PLUS License Mount SO-239... **44.99**

COMET™

NCG/COMET's Mono, Dual, and Tri-Band Antennas for Base Station and Repeater use.

Featuring the COMET Exclusive SLC System:

- Linear Coil for Maximum Gain
- Soldered Element Joints
- ABS Radome Joints: Weather Proof/Invisible to RF for the Finest Radiation Pattern

GP-15 • Tri-band 52/146/446MHz Base Repeater Antenna
Gain & Wave: 52MHz 3.0dBi 5/8 wave • 146MHz 6.2dBi 5/8 wave x 2 • 446MHz 8.6dBi 5/8 wave x 4 • Max Pwr: 150W • Length: 7'11" • Weight: 3lbs. 1oz. • Conn: Gold-plated SO-239 • 2MHz band-width after tuning (6M) • Construction: Single-piece fiberglass

CX-333 • Tri-band 146/220/446MHz Base Repeater Antenna
Gain & Wave: 146MHz 6.5dBi 5/8 wave x 2 • 220MHz 7.8dBi 5/8 wave x 3 • 446MHz 9.0dBi 5/8 wave x 5 • Max Pwr: 120W • Length: 10'2" • Weight: 3lbs. 1oz. • Conn: Gold-plated SO-239 • Construction: Fiberglass, 2 Sections

GP-3 • Dual-band 146/446MHz Base Repeater Antenna
Gain & Wave: 146MHz 4.5dBi 6/8 wave • 446MHz 7.2dBi 5/8 wave x 3 • Max Pwr: 200W • Length: 5'11" • Weight: 2lbs. 9ozs. • Conn: Gold-plated SO-239 • Construction: Single-piece fiberglass

GP-6 • Dual-band 146/446MHz Base Repeater Antenna
Gain & Wave: 146MHz 6.5dBi 5/8 wave x 2 • 446MHz 9.0dBi 5/8 wave x 5 • Max Pwr: 200W • Length: 10'2" • Weight: 3lbs. 8ozs. • Conn: Gold-plated SO-239 • Construction: Fiberglass, 2 Sections

GP-9/GP-9N • Dual-band 146/446MHz Base Repeater Antenna • BEST SELLER!
Gain & Wave: 146MHz 8.5dBi 5/8 wave x 3 • 446MHz 11.9dBi 5/8 wave x 8 • Max Pwr: 200W • Length: 17'8" • Weight: 5lbs. 11ozs. • Conn: GP-9 Gold-plated SO-239 • GP-9N Gold-plated N-type female • Construction: Fiberglass, 3 Sections

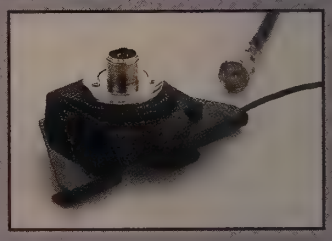
COMET™

NCG COMPANY™

For a complete catalog, call or visit your local dealer. Or, contact NCG Company.
1275 N. Grove Street • Anaheim • California 92806
(714) 630-4541 • (800) 962-2611 • Fax: (714) 630-7024 • www.natcommgroup.com

COMET™ & Maldol

specialists in "No Holes Mobile Mounts!"



COMET CQ-5M Low-profile, "quick-disconnect" trunk lip mount. For quick storage, or theft prevention, the antenna and connector are disengaged from the mount base with the release of a lever. Offset washers provide up to 17 deg vertical antenna adjustment. Includes 16'9" of deluxe cable, 18" of mini RG-188A/U style coax for easy entry thru the weather seal. Gold-plated SO-239/PL-259 conns.

COMET RS-730 Heavy-duty, 4 adjustment planes, up to 70" antenna.

COMET RS-720/ RS-720NMO Med-duty, 3 adjustment planes, up to 60" antenna. NMO mount version.

COMET RS-520 Light-duty, 3 adjustment planes, up to 45" antenna.

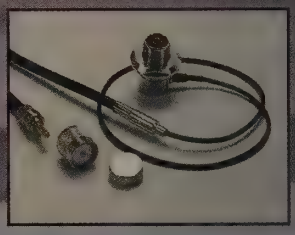
COMET GR-5M Low-profile, stainless steel trunk lip mount. Offset washers provide for up to 17 deg vertical adjustment of antenna. 16'9" of deluxe cable included, 18" mini RG-188A/U style coax for easy entry thru the weather seal. Gold-plated SO-239/PL-259 connectors.

Maldol PRM-T Heavy-duty, 3 adjustment planes, up to 80" antenna.

Maldol MK-30H 12VDC motorized mount. Mounts to vertical or horizontal door lip. Up to 70"/19 oz. antenna.

Maldol EM-B80 Light-duty, 2 adjustment planes, up to 40" antenna.

COMET 3D5M/3D4M Standard low loss cable assembly. Gold plated SO-239/PL-259 connectors. 17' length/13.5' length.



COMET CK-3M5/CK-3M Deluxe cable assembly 17' length including 17" of RG-188A/U for easy entry from a lip mount without causing water leak, wind noise or coax damage. CK-3M 9'9" total length.

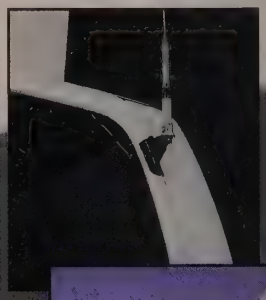
Mount: CP5M Antenna: C757

NEW

COMET *NEW* CP-5M Universal lip mount. 4 adjustment planes, 4 set screws, holds up to 70" antenna. Use on trunk lids, van doors, truck doors, hoods, etc. Fits over virtually any lip 1/4" thick or less. 16'9" of deluxe cable included, 18" mini RG-188A/U style coax for easy entry thru the weather seal. Gold-plated SO-239/PL-259 connectors.

When opened, the antenna does not hit the vehicle, as shown in the photo at the bottom right.

When mounting to a van door, SUV, truck door, etc., use the CP-5M or build your own mounting system with the brackets and cable assemblies shown above. There are several mount sizes, coax diameters and coax lengths from which to choose.



Mount: CP5M Antenna: MSG-1000C

For a complete catalog, call or visit your local dealer. Or, contact NCG Company
1275 N. Grove Street • Anaheim • California 92806
(714) 630-4541 • (800) 962-2611 • Fax: (714) 630-7024 • www.natcommgroup.com

NCG™ COMPANY

Go Mobile!

get there with COMET & Maldol Antennas

COMET HT-224 • Tri-band 2M/220/440MHz HT Antenna
Gain: 1.3/1.4/1.8dBi • Length: 11.5" • Conn: Male SMA

Maldol MH-610 • Tri-band 2M/220/440MHz HT Antenna Super-flex whip
Gain: 0/1.8/3.2dBi • Length: 14" • Conn: Male SMA

Maldol MH-510 • Tri-band 52/146/446MHz HT Antenna w/SMA Conn
Gain: 0/0/3.2dBi • Length: 20.75" • Conn: Male SMA • Max Pwr: 10W

Maldol MH-209SMA • Dual-band 146/446MHz HT Antenna w/SMA Conn
Gain & Wave: 0 1/4 wave • Length: 3" Flexible rubber • Conn: Male SMA • Max Pwr: 5W

NEW Challenger Series
COMET'S Newest Mobiles!
Sleek, Super-Flexible,
Dark Chrome Finish

• Tri-band 52/146/446MHz w/fold-over
Gain & Wave: 52MHz 0 gain 1/4 wave • 146MHz 3.5 dBi 1/2 wave center load • 446MHz 6dBi 5/8 wave center load • VSWR: 1.5:1 or less • Length: 43"
• Conn: PL-259 • Max Pwr: 120W (FM)

• Dual-band 146/446MHz w/fold-over
Gain & Wave: 146MHz 4.5dBi 6/8 wave • 446MHz 7.2dBi 5/8 wave x 3 • Length: 58" • Conn: SBB-7/PL-259/SBB-7NMO NMO • Max Pwr: 70W

• Dual-band 146/446MHz w/fold-over
Gain & Wave: 146MHz 2.5dBi1/2 wave • 446MHz 5.5dBi 5/8 wave x 2 • Length: 39" • Conn: SBB-5/PL-259/SBB-5NMO NMO • Max Pwr: 120W

• Dual-band 146/446MHz
Gain & Wave: 146MHz 2.15dBi 1/4 wave, 446MHz 3.3dBi 5/8 wave center load • VSWR: 1.5:1 or less • Length: 18" • Conn: PL-259 or NMO Style • Max Pwr: 60W

• Dual-band 146/446MHz cellular look-a-like
Gain & Wave: 146MHz 0dBi 1/4 wave, 446MHz 2.15dBi 1/2 wave • Length: 12" • Conn: B-10 PL-259/B-10NMO NMO • Max Pwr: 50W

NEW • Challenger Series • Dual-band 146/446MHz w/fold-over
Gain & Wave: 146MHz 2.15dBi 1/2 wave, 446MHz 5.5dBi 5/8 wave x 2 • VSWR: 1.5:1 or less • Length: 38" • Conn: PL-259 or NMO Style • Max Pwr: 80W

NEW • EX-107RB/EX-107RBNMO Challenger Series • Dual-band 146/446MHz w/fold-over
Gain & Wave: 146MHz 3.5dBi 1/2 wave center load, 446MHz 6.0dBi 5/8 wave x 2 center load • VSWR: 1.5:1 or less
• Length: 40" • Conn: PL-259 or NMO Style • Max Pwr: 80W

COMET NEW UHV-6 • HF/6M/2M/70cm Mobile Antenna 40/*20/*17/15/10/6/2M/70cm
Gain & Wave: 2M 2.15dBi 1/2 wave • 70cm 5.5dBi 5/8 wave x 2 • VSWR: HF 1.6:1 or less, 6M-70cm 1.5:1 or less • Length: 44" (min), 78" (max) • Max Pwr: HF 120W SSB, 6M 200W SSB/100W FM, 2M/70cm 100W FM • *L-14 optional 20M coil • *L-18 optional 17M coil • L-3.5 optional 70-80M coil • Features: • 6M/2M/70cm operation is constant. You CHOOSE the HF coils you want to add, up to four stock or optional. One vertical, the rest horizontal. • Easily mounts to standard trunk/door mount in minutes • Economical • Fold-over hinge built in • Select the duplexer or triplexer for your specific radio(s). CF-706A, CF-530, CFX-514N.

40M Thru 70cm!

COMET UHV-6
Fold-Over Position

Maldol NEW EX-107RB/EX-107RBNMO • Dual-band 146/446MHz
Gain & Wave: 146MHz 2.6dBi 1/2 wave, 446MHz 4.9dBi 5/8 wave x 2 • VSWR: 1.5:1 or less • Length: 29"
• Conn: PL-259 or NMO Style • Max Pwr: 100W

COMET NEW CP-5M
Universal mount and coax cable combo.
Heavy-duty, adjustable RS-730 trunk/van/SUV/truck door mount and deluxe cable assembly. 16' 6" length w/18" mini RG-188A/U type coax, gold-plated conns. Max antenna – 70".

Maldol MSG-1100C
Spring absorbs vibration and impact

Maldol NEW • Dual-band 146/446MHz w/spring whip
Gain & Wave: 146MHz 3.5dBi1/2 wave, 446MHz 6.0dBi 5/8 wave x 2 • Length: 43" • Conn: PL-259 • Max Pwr: 150W

For a complete catalog, call or visit your local dealer. Or, contact NCG Company.
1275 N. Grove Street • Anaheim • California 92806
(714) 630-4541 • (800) 962-2611 • Fax: (714) 630-7024 • www.natcommgroup.com

R6000 MULTIBAND VERTICAL

6 - 20 Meters

The Shape of Things to Come

The R6000 is a 6 through 20 meter, no ground radial antenna. It includes many of the features of the R8, R7 and R5 antennas. R6000 means excellent performance, easy installation and use, slim silhouette and high reliability. There are no traps used on 6, 10 and 15 meters for maximum efficiency and power handling.

▸ EASY INSTALLATION
For typical use, tuning is not required

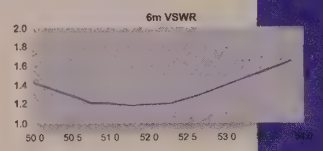
▸ AUTOMATIC BAND CHANGING
To any band 6 through 20 meters

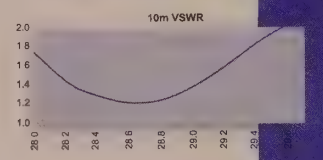
▸ SLIM SILHOUETTE
Gain favor of family and neighbors with the slim, low profile of the R6000

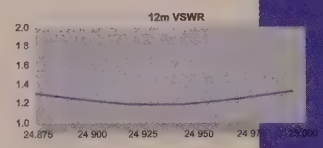
▸ 6 METER OPERATION
Join the fun of the "Magic Band" and take advantage of the new HF/50MHz tranceivers

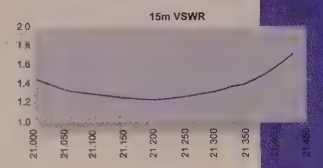
▸ AFFORDABLE PRICE
Cushcraft delivers the best quality and performance at a price no one else can match.

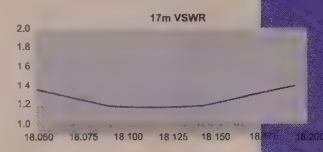
SPECIFICATIONS	R6000
Frequency, meters	6, 10, 12, 15, 17, 20
Gain, dBi	3
VSWR minimum	1.2:1 typical
2:1 bandwidth, KHz	6m >1300
	10m >1700
	12m >100
	15m >450
	17m >100
	20m 300
Power ,Watts output	1500
Radiation angle, deg.	16
Horizontal rad, deg	360
Height, ft (m)	19 (5.8)
Mast size range, in	1.5 -1.75
(cm)	(3.8-4.4)
Wind load, ft^2 (m^2)	1.5 (.14)
Weight, lb (kg)	12.5 (5.6)

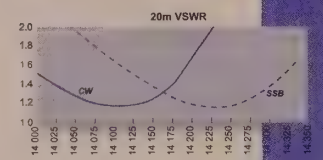


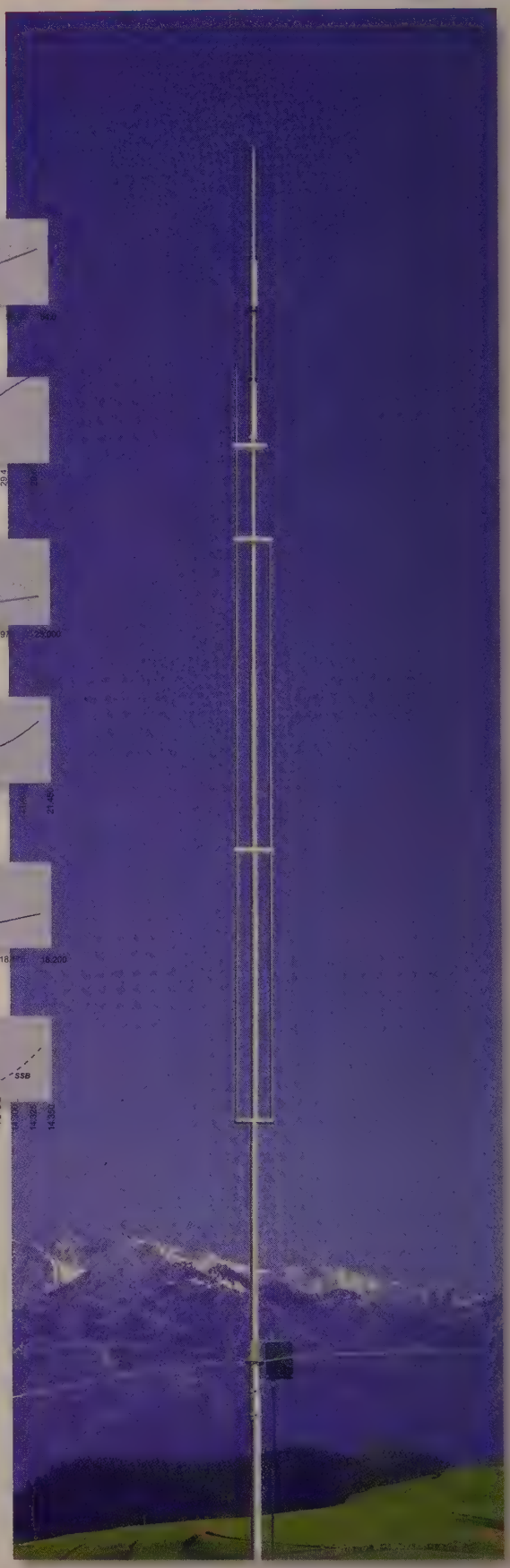












The R6000 employs quarter wavelength stubs on 10 and 15 meters to replace standard trap coils. The result is lower loss and wider bandwidth. The R6000 covers all bands 6 through 15 meters at a VSWR under 2:1. On 20 meters you can select the top 300 KHz or bottom 300 KHz of the band.

The R6000 weighs only 12-1/2 pounds (5.6 kg). It is lightweight and easy to mount for portable or permanent installations. Machined aluminum clamps and UV stable insulators guarantee years of reliable service. The R6000 comes with the standard Cushcraft warranty of one year from purchase - plus the industry's leading technical support team stands behind each Cushcraft antenna.

The R6000 makes an excellent diversity antenna to complement even the most complete stations, or pack up the R6000 for a trip to the DX location of your dreams.

R8 MULTIBAND VERTICAL

HF Multiband Vertical Antenna
6, 10, 12, 15, 17, 20, 30, 40 Meter

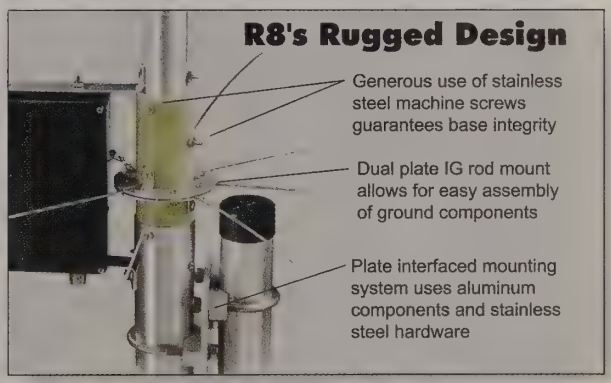
Cushcraft is pleased to announce the introduction of the R8, it's newest multiband HF vertical antenna. This most contemporary of multiband vertical designs provides 8 band coverage encompassing the 6, 10, 12, 15, 17, 20, 30 and 40 meter bands.

Cushcraft has achieved a major breakthrough in the development of an HF multiband vertical antenna that has been specifically designed for use with a tuner and amplifier. As a result, the antenna more accurately addresses the needs of the contemporary ham shack.

Multiband vertical antennas have always been complicated designs with components as likely to be damaged by high levels of mismatched transmit power as the rigs they are attached to. Before the use of tuners became widespread, the antenna was protected by the same safety mechanisms that protected the rig. Now, the automatic power reduction circuits of of the past have actually become a second layer of protective circuitry. Although the auto-tuner provides the ham with a more versatile device as well as protecting the rig's components, the antenna is more vulnerable than ever. With the press of a button, unmanageably high loads can be transmitted up to the antenna. The result to the antenna can be catastrophic failure in some instances.

The R8 is the first multiband vertical designed for the rigors of contemporary operating conditions. Although the antenna is best operated within it's 2.0:1 VSWR bandwidth, it can sustain a 3.0:1 VSWR mismatch at full power for typical operating intervals. Now the ham can take full advantage of the versatility that a tuner used in conjunction with a multiband HF vertical antenna can give him.

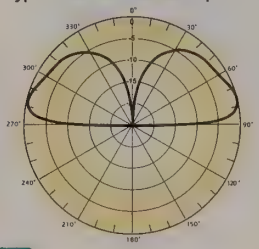
- RUGGED CONSTRUCTION
- AUTOMATIC BAND CHANGING
- SLIM, LOW PROFILE SILHOUETTE

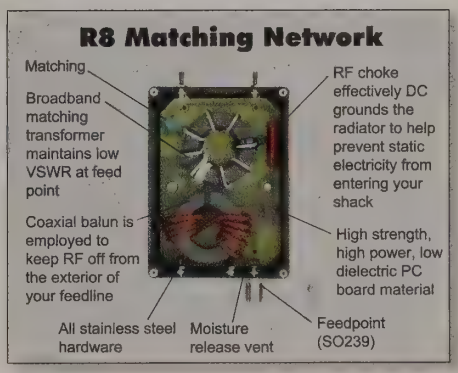


SPECIFICATIONS	R8
Frequency, meters	6,10,12,15,17,20,30,40
Gain, dBi	3
VSWR 2:1 bandwidth, KHz	40m (150)
	30m (>50)
	20m (>350)
	17m (>100)
	15m (>450)
	12m (>100)
	10m (>1500)
	6m (>1500)
VSWR at resonance (typical)	1.3:1
Power Rating, Watts CW	1500
Vertical Radiation angle, deg.	16
Horizontal rad, deg.	360
Height, ft(m)	28.5 max. (8.7)
Wind survival	80 mph
Weight, lb. (kg)	23 (10.5)

Even if you aren't using a tuner and amplifier, you will appreciate this antenna's rugged, heavy duty components. The R8 is easy to assemble and is built to provide years of trouble free service and satisfaction.

Typical elevation radiation pattern





INTRODUCING, MA5V VERTICAL

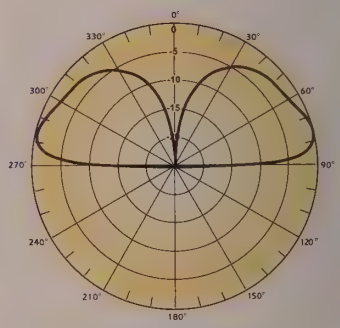
10 - 20 Meters

MA5V, High Performance Multiband Vertical Antenna

The latest addition to Cushcraft's line of high performance, HF multiband verticals allows the occasional user to become the neighborhood BIG GUN. Cushcraft's MA5V is ideal for temporary or portable 5 band operation. The antenna offers 5 band coverage from 10 through 20 meters and is ruggedly constructed, easy to install and just about disappears against the horizon.The antenna does not require radials and can be dismantled in a flash, making it the perfect choice for patios, small backyards, condominium and townhouse balconies or any other environments where permanent antenna use is restricted by covenant or rule. The MA5V will handle all the power you will ever need to work the world from the comfort of your own communications center. And when you're done, just store it way for next time or keep it installed if you wish.

The MA5V from Cushcraft...
Ham radio, "just for the fun of it".

- **5 band coverage**
- **Lightweight**
- **Perfect for temporary or permanent mounting**
- **Work from condos', apartments, motor homes**



Typical elevation radiation pattern

SPECIFICATIONS	MA5V
Frequency, meters:	20, 17, 15, 12, 10,
Gain, dBi:	1-2
VSWR minimum:	1.2:1 All bands
Maximum Wind Surface:	.82 ft^2 (.076 m^2)
Wind Survival, mph:	>80
Maximum Power Handling:	250 SSB
Height, ft (m):	14.7 (4.48)
Mast size, in (cm):	1.25 -2.0" (3.18-5.1)
Weight, lb (kg):	6.5 (2.95)

HF MULTIBAND BEAM

10 - 20 Meters

High Front To Back Ratio
On 10/15/20m

The Director, Small Footprint–Big Signal

MA5B. Cushcraft's newest multiband HF antenna provides 5 band directivity in a package small enough to mount to a tripod. The MA5B is a design that does not sacrifice ruggedness, performance and power handling for size and ease of installation.

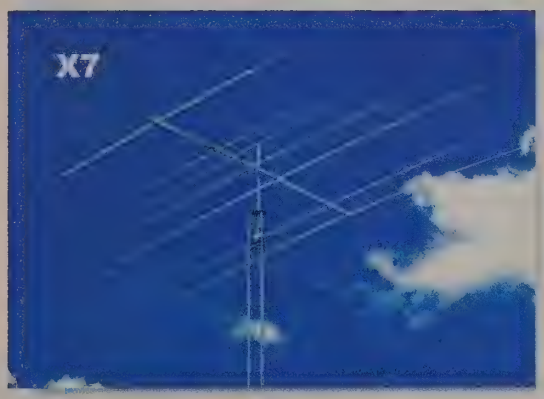
- *I am delighted with the performance compared with other HF antennas I have been using!*
  Bob Swannell, MOBYA

- *Thank you for making a fine quality, powerful mini beam that can fit anyones budget.*
  Phil West, KF2WL

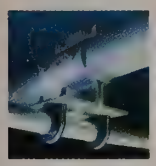
SPECIFICATIONS	MA5B					
Frequency, MHz	10	12	15	17	20	Meters
Elements	2	1	2	1	2	per band
Gain	5.3	1.0	4.8	1.0	3.6	dBi
Front to Back Ratio	10	0	12	0	22	dB
Sidelobe Attenuation	25	25	25	25	25	dB
VSWR 2:1 Bandwidth	665	>110	255	>100	90	kHz
Longest Element	17.1ft (5.2m)					
Turning Radius	8.8ft (2.7m)					
Boom Length	7.3ft (2.2m)					
Boom Diameter	1.5in (3.8cm)					
Max. Wind Surface Area	3.22 ft^2 (.3m^2)					
Max. Power Handling	1.2 kw					
Weight	26.5 lbs. (12kg)					

- **Easy To Tune**
  No complicated gamma matches to adjust.
- **Low VSWR**
  Flat response across all 5 bands. VSWR minimum 1.2:1.
- **Single Feed Point**
  Only one coaxial feed line is necessary for all 5 bands.
- **Rugged Construction**
  Cushcraft's tried and true stainless steel mounting hardware and heavy wall aluminum tubing make for a rugged, long lasting antenna.
- **Easy To Turn**
  With a boom length of 7 feet and a longest element length of 17 feet, a lightweight TV rotor will do the trick.

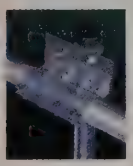
BIG THUNDER TRIBANDER



- New High Efficiency Computer Optimized Design for Maximum Gain and Ultra Clean Radiating Pattern
- 100+ MPH Construction for Best Reliability and Long Life
- NEW 4L Log Cell Driven Elements for better VSWR Bandwidth
- Trapless Driven Elements and Reflectors for Reliable Power Handling
- Interleaved Element Design for Mono-Band Performance
- Add-on kits available for 40 Meters



Element Hardware



Boom-to-Mast

40 Meter Add On Kits

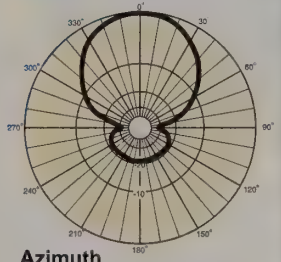
MODEL	X740
Band	7 MHz
Element Length ft. (m)	41 (12.5)
Power (W)	2KW
Weight	20lbs. (9.1 kg)

X7

The X7 Triband Yagi is geared to set new standards in both radiating performance and mechanical reliability. Cushcraft's product development team has employed the latest computer modeling technology to achieve a superior electrical design as well as elegant new mechanical hardware and assembly techniques.

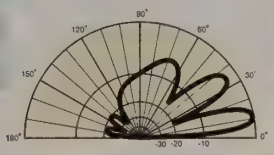
Each mechanical component was designed to 100+ MPH wind survival with a 1.25 safety factor. Traps were eliminated from the high current driven elements and reflectors using the new 4L Log Cell design, which yields virtual monoband performance and maximum power handling capability. Traps are employed only in the lower current directors for increased gain and sharper pattern. The result is a truly high performance antenna which will easily handle the legal limit.

X7



Azimuth

Typical radiation patterns.
Height: One wavelength.
Frequency: 20 M



Elevation

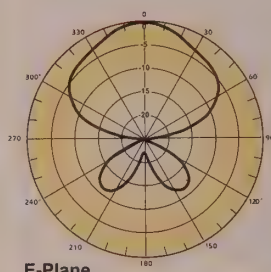
SPECIFICATIONS		X7
Frequency Coverage (Meters)		10, 15, 20
Total number of Elements		7
Maximum Gain (dBi)	20M	12.5 @ 14 deg
@ One Wavelength	15M	13.0 @ 12 deg
	10M	12.9 @ 14 deg
Maximum Front to Back Ratio (dB)		30
Number of Elements per Band		3
VSWR Minimum		1.1:1
VSWR 1.5:1 Bandwidth (KHz)	20M	600
	15M	750
	10M	1700
Longest Element, ft (m)		37.2 (11.33)
Turning Radius, ft (m)		20.0 (6.09)
Boom Length, ft (m)		18 (5.49)
Boom Diameter, in (cm)		2-1/2 (6.35)
Maximum Mast Diameter OD, in (cm)		2-1/2 (6.35)
Maximum Wind Survival, mph (kph)		>100 (>161)
Maximum Wind Surface Area, ft^2 (m^2)		7.9 (.73)
Windload @ 80 mph, lb (kg)		202 (92)
Maximum Power Handling (KW)		2
Weight, lb. (kg)		60 (27.2)

ASL670 LOG PERIODIC ANTENNA

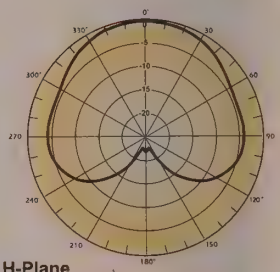
6 Meter - 70 CM

The antenna exhibits excellent gain and f/b with good VSWR bandwidth to boot. Get one today and enjoy the fun of high performance operation and multi-frequency listening all in one compact antenna.

- Rugged construction
- Wide band Log Periodic
- Easy to install
- Easy to turn



E-Plane



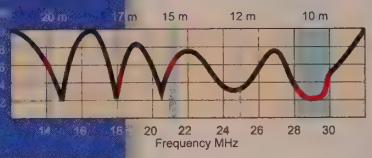
H-Plane

MODEL	ASL670
Frequency, MHz:	50 - 450, Continuous
No. Elements:	14
Forward Gain, dBi, dBd:	6.5, 4.5
Front to Back Ratio, dB:	20
SWR:	1.5:1 Average
Power Rating, Watts PEP:	300
3dB Beamwidth, Degrees, H-Plane:	110
E Plane:	80
Boom Length, ft (m):	6'-8" (1.9)
Boom Size, in (cm):	1.0 x 2.75 (2.54 x7)
Longest Element, ft (m):	126.6" (3.22)
Turning Radius, Horizontal Mtg. ft (m):	6'-3" (1.9)
Turning Radius, Vertical Mtg. ft (m):	3'-9" (1.15)
Mast Size Range, in (cm):	1.5"-2.5" (3.8-6.4)
Wind Load, ft^2 (m^2):	3.0 (.28)
Weight, lb (kg):	11-1/4 (5.15)

ASL670 Log Periodic

Cushcraft's new ASL670 is the ultimate multi-use antenna. Since the antenna is a log periodic, it offers continuous coverage through the 2 and 6 meter bands as well as 220 and 440 MHz. So, while being a terrific antenna for operating on those bands, it is also a great aviation and public safety band monitoring antenna. Use the antenna for contesting and mountain topping if you like. The antenna is compact and easy to assemble and disassemble with no tuning required. Yet it is rugged enough for permanent installation. The ASL670 really shines in its performance specs.

- Continuous five band coverage from 13.5 to 32 MHz
- Constant over entire frequency range
- 6.4 dBi gain, 65 degree beamwidth
- High efficiency design, antenna stays cool and VSWR steady
- 18 foot boom and 19.5 foot turning radius



MODEL	ASL2010
Frequency, MHz	13.5-32
No. Elements	8
Forward Gain, dBi	6.4
Front to Back Ratio, dB	15-20
SWR 1.2:1 Typical	
2:1 Bandwidth	18.5 MHz
Power Rating, Watts PEP	2000
3dB Beamwidth, Degrees	
E Plane	65
Boom Length, ft (m)	18 (5.48)
Boom Diameter, in (cm)	2.0 (5.08)
Longest Element, ft (m)	38 (11.58)
Element Ctr Dia., in (cm)	1.25 (3.18)
Turning Radius, ft (m)	19.25 (5.86)
Mast Size Range, in (cm)	1.5-2 (3.8-5.1)
Wind Load, ft^2 (m^2)	10.1 (.93)
Weight, lb (kg)	55 (25.5)

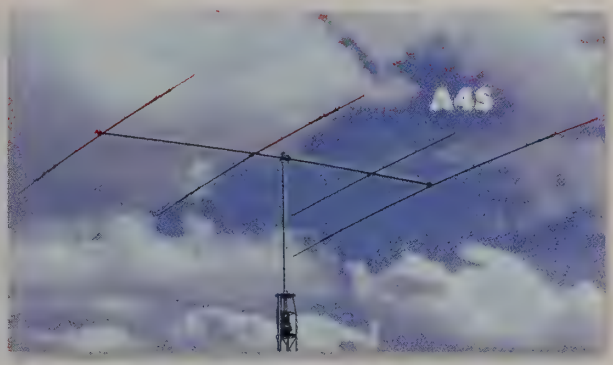
Skylog

The ASL2010 log periodic antenna is the most cost effective, high gain, five band antenna solution on the market today. Skylog offers continuous operation from 13.5 to 32 MHz. Antenna gain and beamwidth are constant for uniform coverage from 10 through 20 meters. The ASL2010 is rated for continuous duty at full legal power. Skylog is designed for maximum gain on a manageable 18 foot boom with only 10.1 square feet of wind surface area. All stainless steel hardware and rugged element design are only some of the many features that provide years of superior antenna performance. Skylog ASL2010 is the smart choice for multiband HF operation.

10 - 40 M WORLD RANGER MULTIBAND HF YAGIS

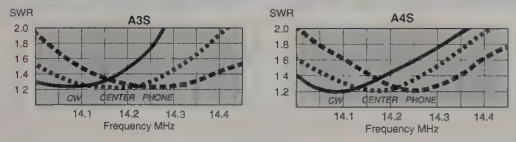
A4S Four Element Beam - 10, 15 & 20 Meters

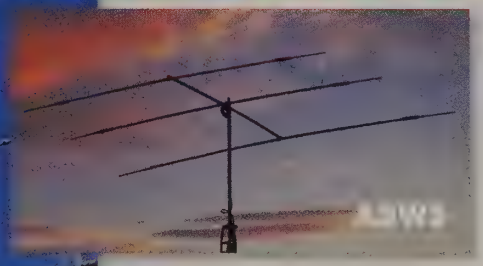
With stainless steel hardware.
The A4S is the true, high performance tribander. Precisely tuned high-power traps, carefully selected element lengths, and proper spacing combine to make the A4S the preferred antenna for your HF work! This is the premium antenna with all the features that you want. High gain, low SWR, and wide bandwidth keep the contacts coming in. All U-bolts, clamps and hardware are stainless steel. The A4S has pinned boom sections and formed aluminum brackets to keep elements straight under all conditions. Our solid construction keeps the A4S on the tower! Add 40 meters with A744 kit.



A3S Three Element Beam - 10, 15 & 20 Meters

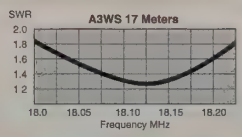
With stainless steel hardware.
The A3 World Ranger, our top selling tribander, has become the A3S with all stainless steel hardware. It's a real power-house in a small space and lets you work the pile-ups with confidence. All you need is a lightweight tower and rotator to enjoy the benefits of the A3S. It's a proven performer in DX-peditions and contests and handles full power from your linear. Construction features include pinned boom sections, heavy duty element clamps with backing plates plus all stainless steel hardware. When space is at a premium, but you want the benefits of a full-size tribander, the A3S is right for you! Add 40 meters with A743 kit.

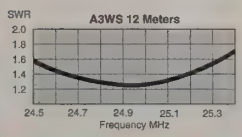




A3WS WARC Bands 3 Element - 12 & 17 Meters

Enjoy the excitement of the WARC bands with this popular beam. The A3WS gives full performance on 12 and 17 meters. With the addition of our easy-to-use A103 add on kit, it will also cover 30 meters. A3WS needs only a lightweight tower and rotator or you can mount it above an existing tribander. Construction features include pinned boom sections, heavy duty element clamps with backing plates plus all stainless steel hardware.





MODEL	A4S	A3S	A3WS
Frequency, MHz	28, 21, 14	28, 21, 14	24, 18
No. Elements	4	3	3
Forward Gain, dBi	8.9	8.0	8.0
Front to Back Ratio, dB	25	25	25
SWR 1.2:1 Typical			
2:1 Bandwidth KHz	>500	>500	300
Power Rating, Watts PEP	2000	2000	2000
3 dB Beam Width, Deg. E Plane	58	60	60
Boom Length, ft (m)	18 (5.48)	14 (4:27)	14 (4.27)
Boom Diameter, In (cm)	2 (5.10)	1.5 (3.81)	1.5 (3.81)
Longest Element, ft (m)	32 (9.75)	27.75 (8.45)	25.1 (7.66)
Element Center Dia, in (cm)	1.25 (3.18)	1.25 (3.18)	1.25 (3.18)
Turning Radius, ft (m)	18.4 (5.49)	15.5 (4.72)	14.4 (4.4)
Mast Size Range, in (cm)	1.25-2.00 (3.18-5.08)	1.25-2 (3.18-5.08)	1.25-2 (3.18-5.08)
Wind Load, ft^2 (m^2)	5.50 (0.51)	4.36 (0.47)	4.1 (0.38)
Weight, lb (kg)	37 (16.8)	27 (12.9)	22.5 (10.2)

30 & 40 Meter Add-On Kits - For A3S, A4S & A3WS

40 meters will come alive by adding one of these kits to the dipole of your A3S or A4S. The kits include high power traps with heavy wall fiberglass insulator and all hardware. A simple adjustment allows 30 meter operation. For our newest beam, the A3WS, we have a 30 meter add on kit the A103.

A743 7 MHz/10 MHz kit for A3S
A744 7 MHz/10 MHz kit for A4S
A103 10 MHz kit for A3WS

MODEL	A743/A744		A103
BAND	7 MHz (40 m)	10 MHz (30m)	10 MHz (30m)
Driven Element with Adapter kit, ft (m)	33.19 min. 35.33 max. (10.12-10.77)	27.12 min. 28.4 max. (8.27-8.66)	32.1 (9.8)
Windloading ft2 (m2)	.58 (.05)	.27 (.03)	.45 (.04)
Bandwidth, KHz	125	150	250
Power Rating, Watts	2000 PEP	2000 PEP	2000 PEP
Side Rejection, dB	20	20	20
Weight, lb (kg)	3.44 (1.56)	2.29 (1.04)	3.25 (1.47)

Rotatable Dipoles

Our World Ranger Dipoles give bi-directional patterns and rotatable convenience. You can mount them high and away from the trees for better performance than a wire dipole. These single and multi-band dipoles feature high-performance traps, heavy wall tubing, and rugged hardware for years of enjoyment.

MODEL	D40	D4	D3	D3W
Frequency, MHz	7	28,21,14,7	28,21,14	24,18,10
SWR 1.2:1 Typical				
2:1 Bandwidth, KHz	200	>350 40>125	>500	>200
Power Rating Watts PEP	2000	2000	2000	2000
Length ft (m)	42.25 (12.88)	35.8 (10.92)	25.8 (7.86)	34.0 (10.37)
Mast Size, in(cm)	1.5-2 (3.8-5)	1.5-2 (3.8-5)	1.5-2 (3.8-5)	1.5-2 (3.8-5)
Wind Load, ft2 (m2)	1.3 (.12)	1.3 (.12)	.9 (.08)	.9 (.08)
Weight, lb (kg)	12 (5)	13 (6)	9 (4)	11 (5)

CUSHCRAFT CORPORATION

MULTIBAND DIRECTIONAL YAGI

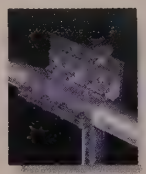
6/2 Meter,70 CM,

A627013S 6 Meter/2Meter/70 CM

Cushcraft's newest multiband directional yagi is designed to provide hobbyists who have limited tower or mast space with directional antenna performance on three of the most popular bands. The A627013S combines 6 meters, 2 meters and 70 centimeters on one boom. Since the three antennas were designed to share a common boom, the A627013S solves the often encountered problem of degraded antenna performance due to inadequate spacing when using separates.

- **Outstanding performance thanks to Cushcraft's unmatched multiband design technology and experience.**
- **Rugged stainless steel mounting hardware is easy to install and maintain.**

MODEL	A627013S		
Frequency, MHz	50-54	144-148	430-450
No. Elements	3	5	5
Forward Gain, dBi	8	10	10
Front to Back Ratio, dB	20	20	18
SWR 1.2:1 Typical			
2:1 Bandwidth, MHz	>1	>4	>10
Power Rating, Watts PEP	1000	350	350
3dB Beamwidth, Degrees			
E Plane		48.5	48.5
H Plane		60	60
Boom Length, ft (m)		8.66 (2.66)	
Longest Element, in (cm)		117 (300)	
Turning Radius, ft (m)		6.16 (1.87)	
Mast Size Range, in (cm)		1.25-2 (3.2-5.1)	
Wind Load, ft^2 (m^2)		2.52 (0.23)	
Weight, lb (kg)		9.5 (4.3)	



Boom-to-Mast

Element Hardware

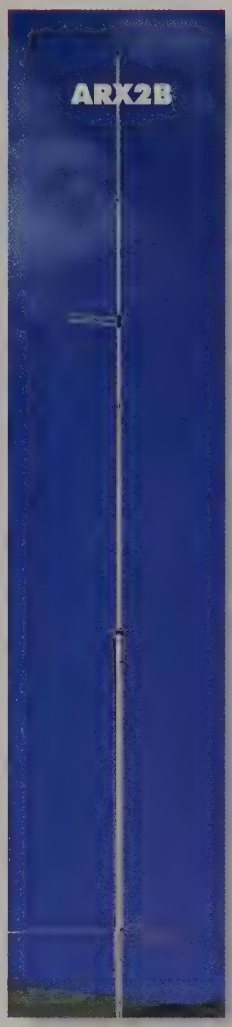
Big Thunder Monobander

Cushcraft's XM240 monobander utilizes rugged Big Thunder hardware that combined with high strength aluminum tubing affords the antenna outstanding wind survivability. Phillystran boom trusses are used in the XM240 design for extra boom stability. The feed system is a 50 ohm direct feed with dual driven elements. VSWR is flat across the band. A high power 1:1 balun is included. The XM240 is field-proven for reliability and performance. Excellent front to back ratio and gain makes the XM240 the right choice for DX and for stacking as well.

MODEL	XM240
Frequency, MHz	7.0 - 7.3
Number Elements	2
Forward Gain Free Space, dBi	6.0
Fwd Gain @ 1 Wavelength Ht, dBi @ 14 deg	12.5
Front to Back Ratio, dB	20-25
VSWR Typical Minimum	1.1:1
VSWR 1.5:1 Bandwidth, KHz	150
Power Rating, Watts Output	1500
3dB Beamwidth, Degrees	70
Side Lobe Attenuation, dB	>35
Boom Length, feet (m)	22 (6.7)
Boom Diameter, inches (cm)	2.5 (6.3)
Longest Element, feet (m)	43 (13.1)
Turning Radius, feet (m)	24.3 (7.4)
Max Mast Size, inches (cm)	2.5 (6.35)
Wind Surface Area, sq ft (sq m)	5.5 (.51)
Wind Load @ 80 mph, lbs (kg)	142 (64.4)
Weight, lbs (kg)	55 (25)

RINGO RANGER II, RINGO RANGER, RINGO

70 CM, 1¼M, 2 M



Some hams comment on the ARX2B:
"Since I put this antenna up I have received many compliments on the improvement of my signal." (N3LHP)

"The only antenna I ever installed that worked like it should the first time." (N7PGH)

"ARX2B is a good antenna for my use on 2 meters FM...Several on the air in my area." (N9OPL)

"ARX2B...the best antenna." (XE2CLB)

Our Ringos are Number One

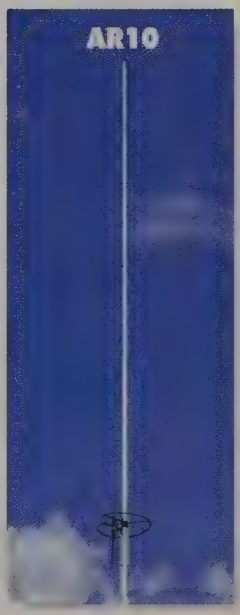
Tough performers at a good price! The Ringo family of dependable, cost-effective antennas has served more hams - from novice to veteran extra - than any other amateur antenna made. Simple, straightforward design, light weight and quick, easy installation make the durable Ringo family right for you. Ringo's top performance and low cost mean more dB per dollar - an equation anyone can appreciate.

Ringo Ranger II

Our Ringo Ranger II has more gain, less windload, and more mechanical integrity than other two meter antennas. You'll quickly appreciate the benefits of this amazing antenna! Based on the original W1BX Ringo, the Ringo Ranger II is the latest design featuring three 5/8 wave radiating elements and an adjustable 1/8 wave phasing stub. The result is a very low angle of radiation over your coverage area.

The Ringo Ranger II has built-in lightning protection, UV-stabilized insulators, heavy wall tubing, improved decoupling radials to eliminate feedline radiation, and all-weather performance.

MODEL	ARX2B	ARX220B	ARX450B
Frequency, MHz	135-160	222-225	435-450
SWR 1.2:1 Typical			
2:1 Bandwidth, MHz	>3	>5	>10
Gain, dBi	7.0	7.0	7.0
Power Rating, Watts FM	1000	500	500
Radiation Angle, Deg.	7	7	7
Horizontal Radiation Pattern, Degrees	360	360	360
Ring Diameter, in (cm)	5 (12.7)	5 (12.7)	3.5 (8.9)
Radiator Base Dia, in (cm)	.75 (1.9)	.75 (1.9)	.50 (1.2)
Height, ft, (m)	14 (4.3)	9.3 (2.8)	4.9 (1.5)
Mast Size Range, in (cm)	1.0-1.25 (2.54-3.1)	1.0-1.25 (2.54-3.1)	.75-.88 (1.9-2.22)
Radial Length, in (cm)	20.5 (52.1)	13.75 (33.7)	6.75 (17.1)
Wind Load, ft^2 (m^2)	0.5 (0.05)	0.3 (0.03)	0.2 (0.02)
Weight, lb (kg)	6 (2.7)	5 (2.3)	1 (.45)



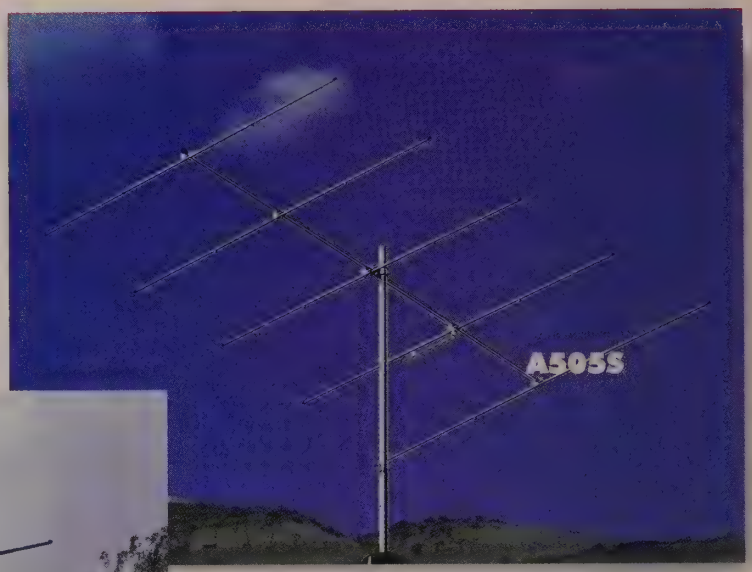
Ringo

These are the original W1BX FM Ringos. If you want a combination of compact size, wide bandwidth, a low radiation angle, these economical antennas are just for you. Since radials are not needed, you can even use our Ringos indoors. Our Ringos are 1/2 wave and include built-in lightning protection. Put up one of these easily installed antennas and start enjoying FM!

MODEL	AR2	AR6	AR10	AR450
Frequency, MHz	135-160	50-54	28-29.7	440-460
SWR 1.2:1 Typical				
2:1 Bandwidth, MHz	10	2	>1.5	20
Gain, dBi	3	3	3	3
Power Rating, Watts FM	1000	1000	1000	500
Radiation Angle, Deg.	16	16	16	16
Horizontal Radiation Pattern, Degrees	360	360	360	360
Ring Diameter, in (cm)	5 (12.7)	13 (33)	13 (33)	3.5 (8.9)
Radiator Base Dia, in(cm)	.75 (1.9)	1 (2.5)	1 (2.5)	.5 (1.3)
Height, ft, (m)	3.9 (1.2)	10.1 (3.1)	17.6 (5.36)	1.4 (.43
Mast Size Range, in (cm)	1-1.25 (2.54-3.1)	1-1.25 (2.54-3.1)	1-1.25 (2.54-3.1)	.75-.88 (1.9-2.22)
Wind Load, ft^2 (m^2)	.21 (.02)	.37 (.03)	1.68 (.16)	.1 (.01)
Weight, lb (kg)	1.5 (.68)	2.5 (1.1)	4 (1.8)	1 (.45)

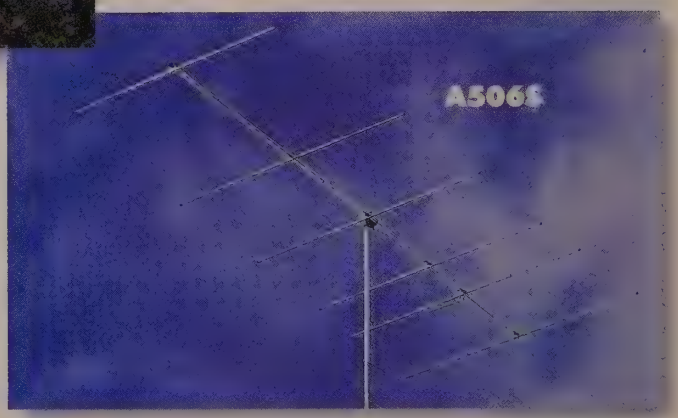
6 Meter Yagis - SSB/CW/FM

Computer-aided modeling and test range techniques were used by Cushcraft engineers to further optimize the performance of our popular 6 meter Yagis. This process means more gain and cleaner patterns with excellent front-to-back ratios. S-models have very broad bandwidth so they will not detune in bad weather. They feature stainless steel hardware for long trouble-free life. Enjoy the new popularity and exciting contacts on the 6 meter band with one of the S-series Cushcraft Yagis. The A503S, A505S and A506S may be mounted vertically for FM use.

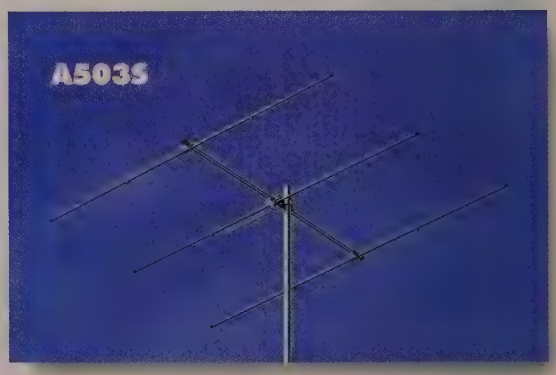


10 Meters

Looking for a lightweight, economical alternative to the 10 meter big boys? Choose the TEN3. Although it's popular with novices and technicians, this antenna is for any ham who wants more gain with a good front to back ratio on 10 meters. This antenna has an 8 foot boom (2.4m) making it easy to install on a very simple mount with only a light rotator. The matching system is our proven Reddi-Match for 50 Ohm no balun feed and SO-238 connector. Make more positive contacts with the TEN3.



MODEL	A503S	A505S	A506S	TEN3
Frequency, MHZ	50-54	50-54	50-54	28-29.7
No. Elements	3	5	6	3
Forward Gain, dBi	8	10.5	11.6	8
Front to Back Ratio, dB	20	24	26	25
SWR 1.2:1 Typical				
2:1 Bandwidth, MHz	>1	>1	>1	>1.5
Power Rating, Watts PEP	1000	1000	1000	2000
3dB Beamwidth, Degrees				
E Plane	76	56	48	64
Boom Length, ft (m)	6 (1.8)	12 (3.7)	20 (6.1)	8 (2.44)
Longest Element, in (cm)	117 (300)	123 (312)	119 (302)	18 (5.49)
Turning Radius, ft (m)	6 (1.8)	7.8 (2.37)	11.5 (3.5)	9.8 (3.0)
Mast Size Range, in (cm)	1.5-2 (3.8-5.1)	1.5-2 (3.8-5.1)	1.5-2 (3.8-5.1)	1.5-2 (3.8-5.1)
Wind Load, ft2 (m2)	1.80 (0.17)	2.9 (0.273)	4.46 (.41)	2.0 (.20)
Weight, lb (kg)	7 (3.2)	11 (5.0)	18 (8.2)	9.9 (4.45)



BOOMER SIDEBAND/CW YAGIS

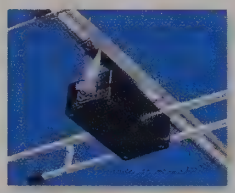
2 Meters

13B2 -13 Element Wideband Boomer

The 13B2 is as versatile as the 17B2 is specialized. 13B2 will be your choice for high performance across the entire 2 meter band. New and experienced hams will enjoy 15.8 dBi gain on FM, packet, CW, or sideband across the 4 MHz operating range. The 13B2 is easily mounted vertically or horizontally for maximum performance on your favorite mode. Its optimum boom length makes it a popular antenna that fits just about anywhere. The new UltraMatch balanced feed on the 13B2 provides a 50 Ohm match via a standard SO-239 UHF female connector. Model **13B2N** has N connector.

17B2 - 17 Element CW/SSB Boomer

The serious two meter operator who is interested in EME, aurora, scatter, SSB, CW, tropo etc, will choose the 17B2. It has 17 elements on a 4.5 wavelength boom. Our computer-aided design supported by precise test range data and the latest manufacturing technology gives you a cleaner pattern and 18 dBi gain in this long boom design. Significant enhancement is provided by the new UltraMatch balanced feed system with N-connector.



The new Cushcraft UltraMatch is a modified T-match system that provides a balanced current distribution on your Boomer. It uses UltraLink teflon® dielectric cable allowing for low loss high power applications. UltraMatch is completely enclosed for weather proofing. UltraMatch features an N-connector on the 17B2 and UHF SO239 on the 13B2. When all weather performance is important, you will choose the new UltraMatched Boomers everytime.

26B2 - 26 Element Wideband Boomer

This antenna offers the highest gain of any 2 meter FM antenna in the world. The 26B2 includes two complete 13B2 antennas, stacking boom and phasing harnesses.

124WB - 4 Element Wideband Boomer

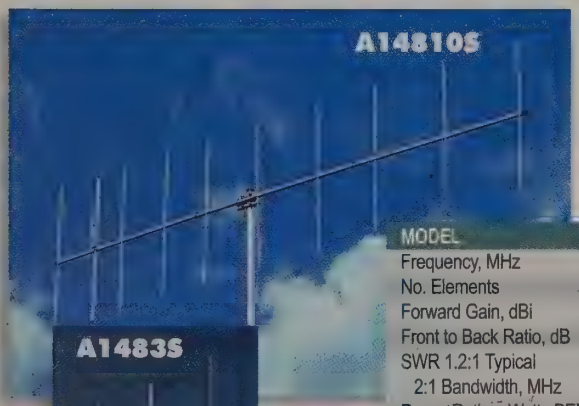
This is the right choice for packet systems and other applications requiring a dedicated directional antenna.

A14810S & A1483S 2M Yagis

These antennas are the newest computer optimized models of our 2 meter Yagis. We have improved both the pattern and gain to give you better FM coverage.

The A1483S is the low priced quality leader for Packet, FM or even portable use. It is easily rear mounted.

A14810S is one of our best value designs with excellent gain and front-to-back ratio. Use it for long range FM or full band 2 meter operation.



MODEL	13B2	17B2	124WB	26B2	A1483S	A14810S
Frequency, MHz	144-148	144-145	144-148	144-148	144-148	144-148
No. Elements	13	17	4	26	3	10
Forward Gain, dBi	15.8	18.0	10.2	18.8	7.8	13.2
Front to Back Ratio, dB	26	26	19	26		
SWR 1.2:1 Typical						
2:1 Bandwidth, MHz	>4	>2	4	>4	>5	≥4
Power Rating, Watts PEP	2000	2000	2000	2000	1000	1000
3 dB Beamwidth, Degrees						
E Plane	2 x 18	2 x 14.5	60	2x18	66	40
H Plane	2 x 19	2 x 15	88	2x9.5	108	46
Side Lobe Atten., dB, E Plane	>60	>60	40	>60		
Boom Length, ft (m)	15 (4.57)	31 (9.45)	4 (1.22)	15 (4.57)	2.8 (.85)	12 (3.6)
Electrical Wavelength	2.2	4.5	.5	2.2		
Longest Element, in (cm)	39.75 (101)	40.75 (103.5)	40.75 (104)	39.75 (101)	41 (104.1)	40.3 (102.4)
Turning Radius, ft (m)	8.9 (2.7)	17.25 (5.26)	4 (1.22)	10.4 (3.18)	2.8 (.8)	6 (1.8)
Mast Size Range, in (cm)	1.5-2 (3.8-5.1)	1.5-2 (3.8-5.1)	1.25-2 (3.2-5.1)	1.5-2 (3.8-5.1)	1.25-2 (3.2-5.1)	1.25-2 (3.2-5.1)
Wind Load, ft^2 (m^2)	1.8 (.17)	3.9 (.36)	.34 (.034)	4.84 (.45)	.27 (.02)	1.21 (.11)
Weight, lb (kg)	6.7 (.31)	15.75 (7.14)	3 (1.36)	21.5 (9.75)	1.5 (.7)	6 (2.7)

CUSHCRAFT CORPORATION

A14820T 2 Meter Hi-Lo Cross Yagi

Here's the antenna that solves multi-mode problems! Ten vertically polarized and ten horizontally polarized elements provide 11.1 dBi gain covering 144-148 MHz. The horizontal elements handle your CW and SSB needs, while the vertical elements cover FM. Hardware is stainless steel. Separate coax feeds allow polarization changes.

A14820T has a boom length of 11 ft. (3.4m), longest element length of 40.6 in. (103cm), wind area of 1.21 ft^2 (.11m^2), and a mast size of 1.25-2 in. (3.2-5.1 cm).

224WB
220 MHz Widebands

These 222 MHz beams are perfect for Packet, FM repeaters, or sideband/CW. Both antennas can be mounted for vertical or horizontal polarization.

MODEL	224WB	A14820T
Frequency, MHZ	222-225	144-148
No. Elements	4	10/10
Forward Gain, dBi	10.2	13
Front to Back Ratio, dB	24	24
SWR 1.2:1 Typical		
2:1 Bandwidth, MHz	>5	>4
Power Rating, Watts PEP	2000	1000
3dB Beamwidth, Degrees		
E Plane	60	45
H Plane	88	50
Side Lobe Attenuation, dB E Plane	40	40
Boom Length, ft (m)	3 (.91)	11(3.4)
Electrical Wavelength	0.5	1.6
Longest Element, in (cm)	26.7 (68)	40.6 (103)
Turning Radius, ft (m)	3 (.91)	7.5 (2.3)
Mast Size Range, in (cm)	1.25-2 (3.2-5.1)	1.25-2 (3.2-5.1)
Wind Load, ft^2 (m^2)	.23 (.021)	0.39(0.11)
Weight, lb (kg)	1.7 (.77)	7 (3.15)

A4496S/A44911S

Use one of these 440 MHz beams for your FM/Packet needs. Both work great for vertical or horizontal polarization.

MODEL	719B	A4496S	A44911S
Frequency, MHz	430-450	440-450	440-450
No. Elements	19	6	11
Forward Gain, dBi	15.5	10.5	13.2
Front to Back Ratio, dB	25	18	20
SWR 1.2:1 Typical			
2:1 Bandwidth MHz	20	>10	>10
Power Rating, Watts PEP	2000	350	350
3 dB Beamwidth, Degrees			
E Plane	24	60	48
H Plane	19		
Side Lobe Atten., dB, E Plane	60		
Boom Length, ft (m)	13.5 (4.1)	2.9 (0.89)	4.2 (1.35)
Electrical Wavelength	6		
Longest Element, in (cm)	13.75 (34.9)	13 (33)	13 (33)
Turning Radius, ft (m)	7.25 (2.2)	2.9 (.89)	2.8 (.85)
Mast Size Range, in (cm)	1.25-2 (3.2-5.1)	1.25-2.0 (3.2-5.1)	1.25-1.5 (3.2-3.8)
Wind Load, ft^2(m^2)	1.2 (.11)	0.30 (0.03)	0.39 (0.04)
Weight, lb (kg)	5.6 (2.55)	3 (1.4)	4 (1.8)

719B FM, CW and SSB 15.5 dBi

Looking for an antenna to enhance performance on all modes of the 70 CM band? The 13.5 foot long 719B is the right choice. Mount it vertical for FM or horizontal for CW and Sideband. The 719B joins the 2 meter 13B2 as a classic for improved performance.

THE SMILEY ANTENNA CO.

HAND TUNED ANTENNAS FOR HANDHELD RADIOS

Each Smiley antenna is individually tuned to resonance at band center under normal operating conditions (no ground plane, no radials). They're manufactured from the finest heat-treated copper plated spring steel coils. Cold rubber compound is used for coil insulation with a neoprene heat-shrink coating applied for strength and endurance. All have BNC connectors.

TS **Thin Stick** 1/4-wave telescoping dual band antenna for 144 and 220MHz bands **$16.99**

SS-II **Super Stick II** *(A)* 2M, 5/8-wave, flexible base loaded telescoping antenna. 6-9db gain fully extended. Usable fully collapsed, or one section 1/4 wave. 54" extended, 10" collapsed..... **$19.99**

SS-II/COMBO **Super Stick II Combo** Same as above, but includes a 2m stubby duck..... **$26.99**

5/8 SLD-2 **5/8 Slim Duck** *(B)* 2m, 5/8-wave, 7db gain, flexible base loaded ant. 12" long **$17.99**

5/8 SLD-2 COMBO **5/8 Slim Duck Combo** As above, but includes a 2m stubby duck..... **$24.99**

RD-2 **Regular Duck** *(C)* For 2m. Tuned ducks show a 3db gain over other rubber ducks because they are *impedance matched* for HTs..... **$14.99**

RDS-2 **Stubby Duck** *(D)* Tuned, for 2m.. **$14.99**

SS-III **Super Stick III** 220MHz 5/8-wave, flexible base loaded telescoping antenna. 6-9db gain extended; usable collapsed, or a one-section 1/4-wave. 36" extended, 8¼" collapsed..... **$19.99**

SS-III/COMBO **Super Stick III/Combo** As above, but incl. a 220MHz stubby duck **$26.99**

5/8 SLD-220 **5/8 Slim Duck** *(E)* 220MHz, 7db gain, flexible base loaded 9" antenna..... **$17.99**

5/8 SLD-220 COM **5/8 Slim Duck Combo** Same as above, but includes a 220MHz stubby duck antenna **$24.99**

RD-220 **Reg. Duck** *(F)* 220MHz, tuned... **$14.99**

RDS-220 **Stubby Duck** *(G)* As above..... **$14.99**

SS-IV **Super Stick IV** *(H)* 440MHz 5/8-wave, flexible telescoping ant. 6-9db gain extended; usable collapsed. 18" extended, 5¾" collapsed..... **$19.99**

SS-IV/COMBO **Super Stick IV Combo** Same as above, plus has 440MHz stubby duck..... **$26.99**

SL-440 **Slimline** *(I)* 440MHz, ¼-wv. flex. **$12.99**

5/8 SLD-440 **5/8 Slim Duck** *(J)* 440MHz, 7db gain, flexible base loaded 5" antenna..... **$17.99**

5/8 SLD-440 COM **5/8 Slim Duck Combo** As above, plus has a 440MHz stubby **$24.99**

RDS-440 **Stubby** *(K)* 440MHz, tuned..... **$14.99**

RDMD-440 **Mini Duck** *(L)* As above..... **$14.99**

FLX 1/2 WAV-2M **Flex-Coil** *(M)* 2M, 1/2-wave, 7-9dB gain, flexible base, 35" fully extended **$25.99**

270A *(N)* Telescoping 2m/440 gain antenna. 1/4-wave (2m) 5/8-wave (440MHz). The 270A is also available with SMA **$19.99**

TAQ 1/4-wave whip antenna, specify for 2M, 220 or 440MHz .....each **$10.99**

Arrow Antenna

146/437-10 KK5YY, pictured at the left, working VE6EGN on the AO27 satellite using a Yaesu VX-1R, with 500mW output, connected to an Arrow 146/437-10. The Arrow is designed specifically to allow portable satellite operation using just an HT. Meaning, it's engineered to provide maximum gain and efficiency within a small size and weight. The boom construction is 3/4" square aluminum stock, 37.5" long with a foam grip on the back end for comfort. The three VHF and seven UHF Gamma matched elements with separate BNC connectors are aluminum arrow shafts which are strong and lightweight, and plastic tipped for safety..... **$73.99**

146/437-10BP Split boom model **$79.99**

We accept I.M.P.A.C.® Government Credit Cards

PREMIER communications

RD-78 RD-8 RD-98 RD-9 AL-800

HANDHELD ANTENNAS

RD-2 **Short Duck Antenna** *(not pictured)* Perfect fit for the new micro-sized handhelds such as the VX-1R, VX-5R, IC-Q7A, etc. Only 2" tall, but gives big performance. Operates on both 2M and 440MHz and also works great for out of band scanning. BNC connector **$14.99**

RD-2SMA Same as RD-2, SMA connector **$15.99**

RD-78 **Extended Duck Antenna** 15" tall, provides an improvement over stock, steel, spring-type antennas. Hit local repeaters solidly, access distant machines, talk extended simplex. Has 2.5dBi gain on VHF, 3.2dBi on UHF. Also includes 800/900MHz receive capability. Flexible, but doesn't droop. Gold-plated BNC connector **$19.99**

RD-8 **Duck Antenna** 6.5" tall and very flexible. Improves your signal over any manufacturer's stock duck. The perfect companion to any 2M/440MHz handheld, including those with 800/900MHz receive. Gold-plated BNC connector..... **$14.99**

RD-98 **Thin Whip Antenna** A 2M/440MHz HT antenna that is 17" long with a diameter of only 1/16th of an inch. Made of extremely strong and very flexible material – ties in a knot without damage! BNC connector..... **$24.99**

RD-98SMA Same as RD-98, SMA conn... **$27.99**

RD-9 **Flexible Duck Antenna** An extremely flexible 7" tall rubber duck that will improve handheld performance on both 2M and 440MHz. while providing 800/900MHz receive capability. Connector is protected by a moisture shield and is molded to sit firmly on the connector, preventing excessive wear and tear. BNC connector **$18.99**

RD-9SMA Same as RD-9, SMA conn..... **$20.99**

AL-800 **Telescoping Antenna** Useful whenever you need extra performance for satellite work, or when on the fringes of a repeater. Telescopes to 34" or collapses to 10". Has 3.2dBi gain on VHF, 5.5dBi on UHF. For convenience and/or shorter range operation, the telescoping section unscrews and may be replaced with the included 9" rat tail. Gold-plated BNC connector..... **$29.99**

Used & Demo Equipment lists

Updated regularly on the web.
Check them out and order **On-line**

DIAMOND ANTENNAS

The Standard By Which All Others Are Judged.

Acclaimed as the technological leader in single & multiband antennas

• Wide-band Performance • Factory Adjusted–No Tuning Required • Highest Gain
• UPS Shippable • High Wind Rating • Fiberglass Radome • DC Grounded • Stainless Hardware

X500HA (UHF-Conn.)
X500HNA (Type-N Conn.)
Ruggedized Base/Repeater Antenna

X50NA

X500HNA

X50NA

The X50NA is an excellent choice where ruggedness is required in a medium–gain, dual-band, base/repeater application.

Features

- Wide frequency bandwidth
- Heavy duty fiberglass radome
- Stainless steel mounting hardware and radials
- Type–N Cable connection
- Compact size for easy mounting/installation

Specifications:

Freq.: 2m: 144–148MHz
70cm: 440-450MHz
Gain: 2m: 4.5dB; 70cm: 7.2 dB
Power: 200 watts
Wind Rating: 135 MPH (no ice)
Height: 5.6 feet

X500HNA

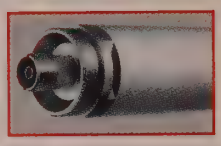
Diamond Antenna's best base station repeater antenna. Designed for strength and performance, the X500HNA is pretuned to achieve maximum gain in both the 2m and 70cm amateur bands.

Features

- Heavy duty fiberglass radome
- Overlapping outer shells for added strength
- Stainless steel mounting hardware and radials
- Strong, waterproof joint couplings
- Type–N Cable connection
- Wide band performance

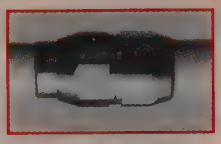
Specifications:

Freq.: 2m: 144–148MHz 70cm: 440-450MHz
Gain: 2m: 8.3dB; 70cm: 11.7 dB
Power: 200 watts
Wind Rating: 90 MPH (no ice)
Height: 17.8 feet



COAX CONNECTION AT BASE END

HEAVY DUTY BASE/ RADIAL ASSEMBLY



STRONG JOINT COUPLINGS

DIAMOND Mono-Band Base/Repeater Antennas

MODEL	BAND (MHz)	GAIN (dB)	WATTS	CONN.	HT. FT.	RATED WIND MPH (No. Ice)
CP22E [1]	144	6.5	200	UHF	9.0	90
DPGH62 [1]	50	6.0	200	UHF	21.0	78
F22A	144	6.7	200	UHF	10.5	112
F23A	144	7.8	200	UHF	15.0	90
F718A [2]	440	11.5	250	N	15.0	90
G200	2.4GHz	11 dBi	–	N	4.8	135

DIAMOND Dual-Band Base/Repeater Antennas

MODEL	BAND (MHz)	GAIN (dB)	WATTS	CONN.	HT. FT.	RATED WIND MPH (No. Ice)
X50A	144/440	4.5/7.2	200	UHF	5.6	135
X50NA	144/440	4.5/7.2	200	N	5.6	135
X200A	144/440	6.0/8.0	200	UHF	8.3	112
X510NA [3]	144/440	8.3/11.7	200	N	17.2	90
X510MA	144/440	8.3/11.7	200	UHF	17.2	90
X500HNA	144/440	8.3/11.7	200	N	17.8	90+
X700HNA	144/440	9.3/13.0	200	N	24.0	90
U200	440/1240	8.3/11.7	100	N	5.9	135

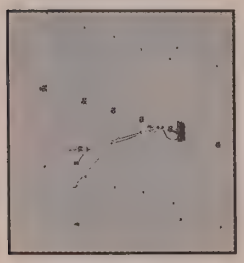
DIAMOND Tri-Band Base/Repeater Antennas

MODEL	BAND (MHz)	GAIN (dB)	WATTS	CONN.	HT. FT.	RATED WIND MPH (No. Ice)
V2000A [4,6]	52/144/440	2.1/6.2/8.4	150	UHF	8.3	110
X3200A [5]	146/222/440	6.0/7.8/8.0	100/200	UHF	10.5	112
X6000A	144/440/1240	6.5/9.0/10.0	100/60	N	10.5	112

Most requirement: 1.4"-2.4"

A502HB

A504HB



A144S5

NOTES:

1. Heavy duty aluminum construction.
2. F-718A: 440-450MHz., F718L: 420-430MHz.
3. X510NJ: 144-147/430-440MHz.
4. 1/4λ rated in dBi.
5. 2m: 146-148; 100 watts
6. 52-54MHz. only

BAND: 144=144-148MHz., 222=222-225MHz., 420=420-430MHz.,430=430-440MHz., 440=440 450MHz., 1240=1240-1300MHz.

DIAMOND Yagi Antennas

MODEL	BAND (MHz)	GAIN (dBi)	WATTS (PEP)	CONN.	BOOM LNTH.	ELEMENT PHASING
A502HB	50	6.3	400	UHF	2.6'	2 element
A504HB	50	10.8	400	UHF	10.7'	4 element
A144S5	144	9	100	UHF	37.5"	5 element
A430S10	432	13	100	UHF	43"	10 element
A430S15	432	14.8	100	UHF	89"	15 element

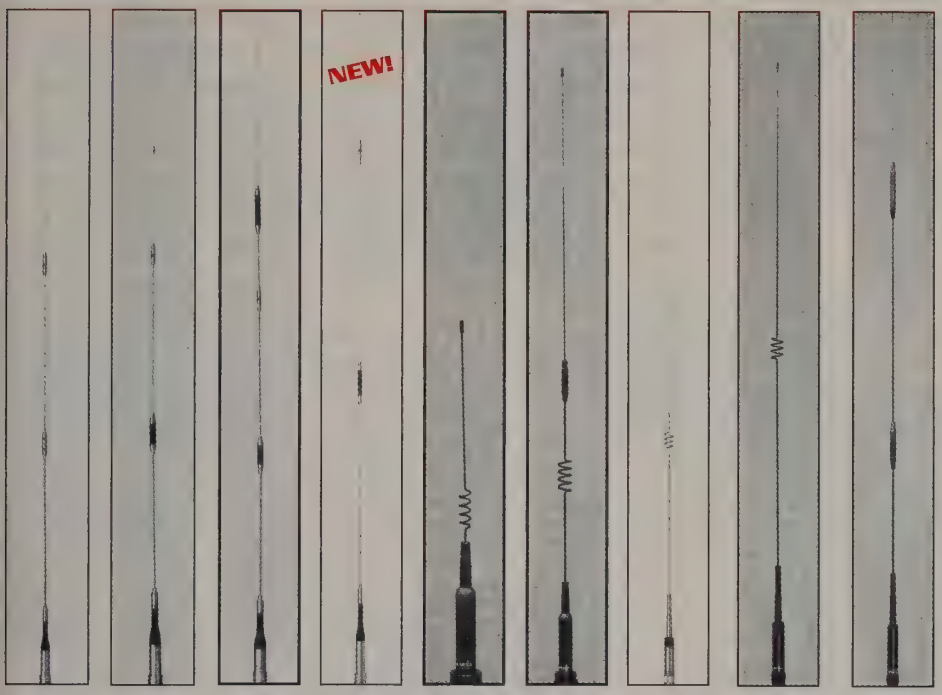
www.rfparts.com/diamond
Diamond Antenna Division of RF Parts Co. Tel: (760) 744-0900 • FAX: (760) 744-1943 • E-mail: rfp@rfparts.co

DIAMOND ANTENNA

DIAMOND'S STATE-OF-THE-ART

VHF/UHF And HF/VHF Mobile Antennas– Maximum Performance Without Compromise

You've seen the rest...now own the BEST!

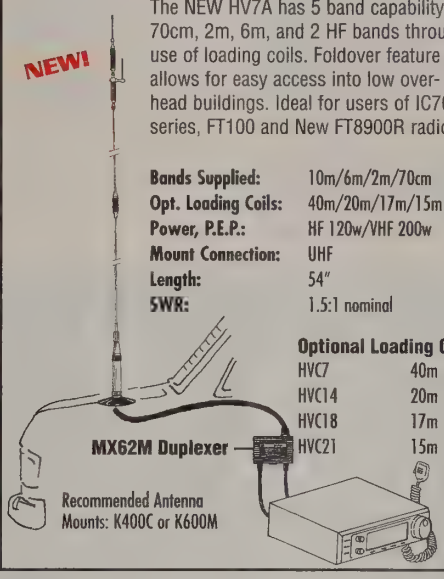


SG2000HD | SG7500A SG7500NMO | SG7900A | SGM911 | NR72BNMO | NR73BNMO | NR770HA NR770HB | NR770HNMO NR770HBNMO | CR627B CR627BNMO

HV7A Mobile Antenna System

For New HF/VHF transceivers

(Such as: IC706 series, FT100 & NEW FT8900R)



The NEW HV7A has 5 band capability: 70cm, 2m, 6m, and 2 HF bands through use of loading coils. Foldover feature allows for easy access into low overhead buildings. Ideal for users of IC706 series, FT100 and New FT8900R radios.

Bands Supplied:	10m/6m/2m/70cm
Opt. Loading Coils:	40m/20m/17m/15m
Power, P.E.P.:	HF 120w/VHF 200w
Mount Connection:	UHF
Length:	54"
SWR:	1.5:1 nominal

Optional Loading Coils

HVC7	40m
HVC14	20m
HVC18	17m
HVC21	15m

FOLD-OVER

Patented One-Touch Fold-Over Feature. (Not available on M285, M685, MG200, MR77, MR77SMA, NR72BNMO & NR73BNMO)

SPECIAL FEATURES:

- Factory pre-tuned/no adjustment
- Highest Performance antennas
- NMO and UHF (PO) base styles
- 24 Kt gold plated connector pin
- No grounding required unless noted
- Fold-over feature on most models

MODEL	BAND (MHz)	GAIN (dB)	WATTS	CONN.	HT. IN.	ELEMENT PHASING
MR77	2m/70cm	2.15/3.4	70	MAG	20	1/4λ, 1/2λ
MR77SMA	2m/70cm	2.15/3.4	70	MAG	20	1/4λ, 1/2λ
NR72BNMO*[6]	2m/70cm	2.15	100	NMO	13.8	1/4λ, 1/2λ
NR73BNMO	2m/70cm	2.15/5.3	100	NMO	33.5	1/2λ, 1-5/8λ
NR770HA[7]	2m/70cm	3.0/5.5	200	UHF	40.2	1/2λ, 2-5/8λ
NR770HNMO[8]	2m/70cm	3.0/5.5	200	NMO	38.2	1/2λ, 2-5/8λ
NR770RA	2m/70cm	3.0/5.5	200	UHF	38.6	1/2λ, 2-5/8λ
SG7000A*[6]	2m/70cm	2.15/3.8	100	UHF	18.5	1/4λ, 6/8λ
SG7500A	2m/70cm	3.5/6.0	150	UHF	40.6	1/2λ, 2-5/8λ
SG7500NMO	2m/70cm	3.5/6.0	150	NMO	41.0	1/2λ, 2-5/8λ
SG7900A*	2m/70cm	5.0/7.6	150	UHF	62.2	7/8λ, 3-5/8λ
SGM510	2m/70cm	2.15/5.5	100	UHF	37	1/2λ, 2-5/8λ

* Not recommended for Magnet Mount
6 Grounding required.
7 NR770HB same specifications but in black finish.
8 NR770HBNMO same specifications but in black finish.
9 52-54MHz only
10 Tunable from 140-174MHz
1/4λ rated in dBi.

MODEL	BAND (MHz)	GAIN (dB)	WATTS	CONN.	HT. IN.	ELEMENT PHASING
NR2C	2m	4.1	150	UHF	55.5	1/2λ+1/4λ
SG2000HD*	2m	5.2	250	UHF	62.6	1/2λ+3/8λ
CR320A*[6]	2m/1-1/4m 70cm	2.15/3.8 5.5	200/100 200	UHF	37.4	1/4λ, 1/2λ 2-5/8λ
CR627B*[6,9] CR627BNMO*[6,9]	6m/2m 70cm	2.1/4.5 7.2	120	UHF/NMO	60	1/4λ, 1/2+1/4λ 2-5/8λ
HF6FX*[6]	6m	2 dBi	250	UHF	40	1/4λ
HF50CX*[6]	6m	3.5 dBi	200	UHF	75	3/8λ
NR22L*	2m	6.5	100	UHF	96.8	2-5/8λ
NR2000NA	2m/70cm 23cm	3.15/6.3/9.7	100	N	39	1/2λ, 2-5/8λ 5-5/8λ
M285*[10]	2m	3.4	200	UHF	52.4	5/8λ
M685*[6]	6m	2.15 dBi	200	UHF	52.4	1/4λ
MG200	2.4GHz	7 dBi	-	N	23.6	3-1/2λ
SGM911*[6,9]	6m/2m/70cm	2.15/3/5.8	60	UHF	41	1/4λ, 1/2λ,2-5/8λ
NR124	23cm	8.4	100	N	25	4-5/8λ

www.rfparts.com/diamond

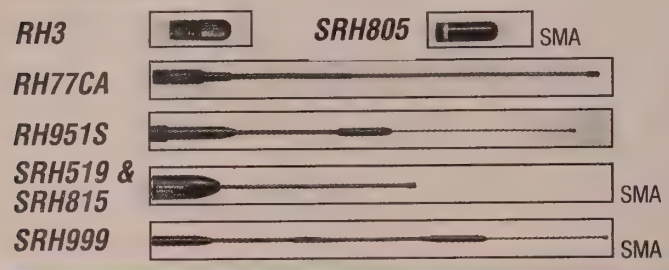
iamond Antenna Division of RF Parts Co. Tel: (760) 744-0900 • FAX: (760) 744-1943 • E-mail: rfp@rfparts.com

DIAMOND Antenna Accessories

High Efficiency HT & Scanner Antennas
HF Multiband Vertical Antenna
Duplexers & Triplexers
Dummy Loads & Coaxial Switches

RH Series

High quality, high gain HT antennas for mono, dual, and tri-band handheld radios. Available in both BNC and SMA connections. Increase the performance on your handheld or wideband scanner with a Diamond RH or SRH Series antenna.

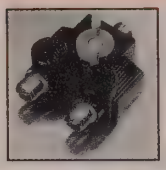


MODEL	DESCRIPTION	RELATIVE GAIN*
D130J	Wideband discone 25-1300 MHz. 200 W transmit 50-1300 MHz. No cable.	N/A
RH3	2m/70m dual band "Black Bullet" HT antenna. 1.75" BNC. 120 to 900 receive	-2 dB
RH77CA	High gain 2m/70cm dual band HT antenna. Receive range to 900 MHz. BNC.	+6 dB
RH205	2m HT antenna, telescopic, 5/8λ fully extended, 47.5"; 1/4λ retracted, 9"	+9 dB
RH519	2m/70cm slim dual-band HT antenna. Flexible. 8" BNC, 10 watts.	+3 dB
RH707	2m/70cm dual-band -tiltable whip – HT antenna. 8 1/4" BNC.	+3 dB
RH951S	High gain 2m/70cm/23cm slim tri-band HT antenna. Flexible. BNC (Wide band receive)	+6 dB
SRH77CA	High gain 2m/70cm dual band flexible HT antenna. 15" SMA, 10 watts.	+6 dB
SRH519	2m/70cm dual-band HT antenna. Flexible. 8" SMA, 10 watts.	+3 dB
SRH805	2m/70cm/23cm tri-band HT antenna. 1.75" SMA, 10 watts.	-2 dB
SRH815	2m/70cm/23cm tri-band HT antenna. Flexible. 6" SMA, 6 watts.	+3dB
SRH999	6m/2m/70cm/23cm quad-band HT antenna. Flexible. 19.5" SMA, 10 watts.	+3dB

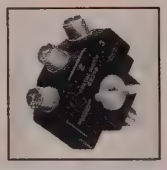
*Rated against typical stock HT antennas.

DL30A/DL30N

CX210A/CX210N



CX310A

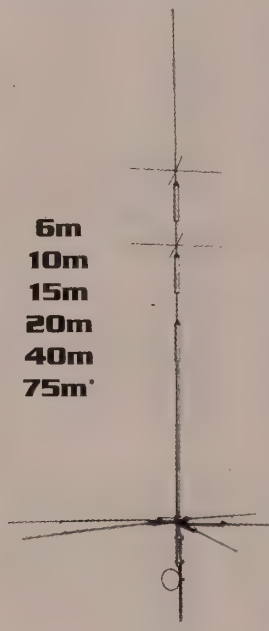


MODEL	DESCRIPTION
CA23RS	Lightning surge protector, DC-2500 MHz, 200W Type-N (F)
CA23RW	Lightning surge protector, DC-2500 MHz, 200W Type-N (F) Waterproof.
CX210A	Heavy duty wideband coax switch, DC-1000 MHz. 1.5 kW, SO-239
CX210N	Heavy duty wideband coax switch, DC-1500 MHz. 1.5 kW, Type N
CX310A	Heavy duty wideband coax switch, 3 position, DC–800MHz, SO–239
DL30A	Dummy load, DC-500 MHz. 15w average/100w peak. PL-259
DL30N	Dummy load, DC-500MHz. 15w average/100w peak. Type N

CP6A HF MULTIBAND VERTICAL

The New CP6A multi-band trap-vertical antenna for HF bands, covering the 75*, 40, 20, 15, 10 and 6m amateur bands. Made from heavy-duty aluminum, the CP6A assembles easily, yields excellent performance and reliability from a compact base station antenna. Its compact size allows for many mounting options. Minimum 15 feet diameter required for mounting radials. No additional ground radials required. Mounting hardware included.

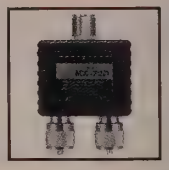
*75m requires a tuner.



Specifications

Frequency:	75*/40/20/15/10/6m	
Power:	200w PEP	
Impedance:	50Ω	
VSWR:	1.5:1 nominal	
Element:	1/4 wave trap vertical	
Radials:	Trap design, six	
Grounding:	Direct grounding. Antenna element & radials connected to mounting pipe.	
Max. Wind Rating:	80mph (no ice)	
Mast Diameter Accatance:	1.2-2.4"	
Overall Length:	15.10' (4.6m)	
Weight:	9.9lbs. (4.9kg)	
Connector:	SO-239 female UHF	
Bandwidth: (for nominal 1.5:1 VSWR without antenna tuner)	75m	20kHz
	40m	40kHz
	20m	100kHz
	15m	200kHz
	10m	500kHz
	6m	3.5MHz

MX-72D



MX-72H/N

Duplexers/Triplexers

MODEL	MX72D	MX72H	MX72N	MX2000			MX62M	
FREQUENCY BAND (MHz)	LPF 1.6-30	140-150	HPF 400-460	LPF 1.6-60	BPF 110-170	HPF 300-950	LPF 1.6-56	HPF 76-470
PWR CW (ICAS) WATTS P.E.P.	400 1000	150 400	100 250	800	800	500	600	
THRU LOSS/dB	0.15	0.15	0.25	0.15	0.2	0.25	0.2	0.3
ISOL	60dB			60dB			50dB	
VSWR	1.2:1			1.2:1			1.2:1	
CONNECTOR COMPLEMENT	(M) MIX 144 430 (M) (M)	(M) MIX 144 430 (M) (M)	(M) MIX 144 430 (M) (N)	(M) MIX 50 144 430 (M) (M) (M)			(M) MIX HF VHF (M) (M)	
CONNECTOR	Direct	12" Cable w/Connectors		12" Cable w/Connectors			12" Cable w/Connectors	

www.rfparts.com/diamond
Diamond Antenna Division of RF Parts Co. Tel: (760) 744-0900 • FAX: (760) 744-1943 • E-mail: rfp@rfparts.c

DIAMOND'S Premium Antenna Mounts & Cable Assemblies

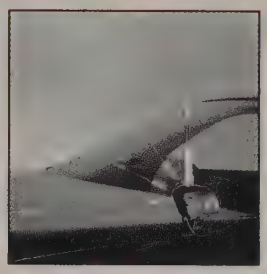
Designed for today's high performance antennas

K9000
Motorized Mount

Raise and lower your antenna with a touch of a button. Vertical adjustment 0-9º. Accepts "ground independent" antennas up to 45". Recommended antennas: SG7500NMO, NR73BNMO, SG7500A, NR2C and NR770 series.

K9000TM Trunk/Hatchback Mount
K9000LRM Luggage Rack Mount

** Use C-Series cable assemblies.*



K400
Heavy Duty Hatchback/ Door/Truck Lid Mount

Diamond's deluxe heavy duty mount. Two-axis adjustable. 4" wide mounting base with 4 set screws for maximum strength. Recommended for high gain VHF/UHF antennas.

K400C* SO-239 base, 6.5' coax & PL-259
K400CNMO* NMO base, 6.5' coax & PL-259
K400S[1] SO-239 base, 13.5' coax & SMA
K400SNMO[1] NMO base, 13.5' coax & SMA

** Use C110 for front radio installations.*
[1] Includes SMA to UHF adapter.

K600
Variable Angle Trunk Mount

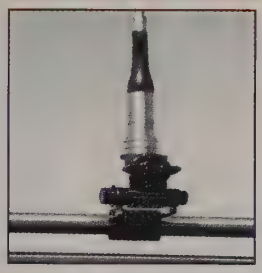
Deluxe aerodynamic trunk mount. Vertical adjustment 0-9º. 4" wide mounting base with 4 set screws for maximum strength. Recommended for high gain VHF/UHF antennas.

K600M SO-239 base, 16.5' coax & PL-259

K540
Mirror/Luggage Rack Mount

Adjustable Mirror/Luggage rack mount accepts 1/2" to 7/8" tubing. Fits most mirrors and utility racks. Recommended for antennas under 45".

K540KM SO-239 base, 13' coax & PL-259
K540 Mount Only



K550
Luggage Rack Mount

Adjustable luggage rack mount for new mini vans. Recommended for antennas under 45".

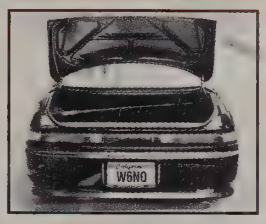
K550KM SO-239 base, 13' coax & PL-259
K550 Mount Only

K412
Deluxe Hatchback/Door/ Trunk Lid Mount

Two-axis adjustable mount for light weight antennas. 1.5 inch mounting width. Ideal for tight mounting options. Recommended for antennas under 45".

K412C SO-239 base, 6.5' coax & PL-259
K412CNMO NMO base, 6.5' coax & PL-259
K412S[1] SO-239 base, 13.5' coax & SMA
K412SNMO[1] NMO base, 13.5' coax & SMA

** Use C110 for front radio installations.*
[1] Includes SMA to UHF adapter.



K601
Hide-Away Mount

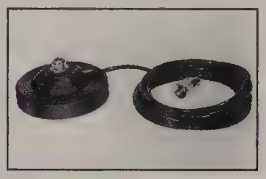
Folds antenna safely into trunk. Fully adjustable, fits most vehicles. Recommended antennas: NR2C, NR73BNMO, NR770HNMO, NR770HA, NR70HBNMO, NR770HB, NR770RA, SG7500A, SG7500NMO and SGM510.

K601M SO-239 base, 6.5' coax & PL-259
K601NMO NMO Base, 6.5' coax & PL-259

** Use C110 for front radio installations.*

K702M
Magnet Mount Base

Deluxe low profile magnet mount with high holding power. Aerodynamic styling, large 6 3/8" diameter, 3/4" height. For VHF/UHF antennas up to 50" height. Includes thin mylar protective sheet to enhance grip and protect vehicle paint. Cable: 13' RG58A/U & PL-259.



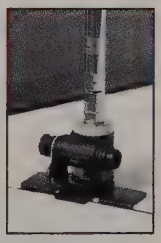
SPM35
Magnet Mount Base

Heavy duty 2.2 lb./4" magnet mount rated 25-500 MHz. Cable: 13' coax and PL-259. Recommended for antennas under 45".

SPM-NMO
Magnet Mount Base

Similar to the SPM35, but has NMO mount.

K400-3/8 C
Special Trunk Mount for 3/8 x 24 Thread Antennas



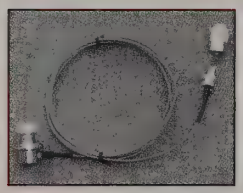
Ideal mount for Outbacker Perth, OB Jr., and other medium weight antennas.

Note: Use C110, 10ft extension for front radio installation

Adjustment:	2 axis
Power:	350 watts RMS 500 w P.E.P.
Cable	6 1/2' RG316 Teflon coax w/PL-259

Spring recommended for stiff/heavy antennas

C-SERIES CABLE ASSEMBLIES



C101
SO-239 base, 6.5' RG316 Teflon coax & PL-259. Ideal cable assembly for trunk mount radios.

C101NMO
Same as C101 with NMO base. For Diamond's K-Series mounts.

C213
Same as C101, 13.5' length.

C213NMO
Same as C101NMO, 13.5' length.

C110
Extension for C101. 10' RG8X coax w/mini UHF Conn. Use C110 to extend cable for front radio installations.

C110BNC
10' assembly similar to above, uses RG316 Teflon coax terminating in BNC-male.

C110SMA
Similar to C110BNC, terminating in SMA male.

C211
SO-239 base, 16.5' cable assembly & PL-259. Combination of C101 & C110.

C104SMA
4' extension cable for HT's with SMA connector. For existing cable assemblies with PL-259. UHF female (SO-239) to right angle SMA male.

C105SMA
5' extension cable for C101. RG58/U cable, terminating in right angle SMA male.

www.rfparts.com/diamond

iamond Antenna Division of RF Parts Co. Tel: (760) 744-0900 • FAX: (760) 744-1943 • E-mail: rfp@rfparts.com

Miracle Antenna

MIRACLE WHIP All-Band, Rig-Mounted, Tun-able Whip For the FT-817, and other QRP (5W) or SWL rigs. The Miracle Whip is the only completely self-contained, all-band 57" telescoping whip antenna with integrated tuner for receiving and transmitting that mounts right on a radio's antenna connector. Continuous tune 0.6 to 500MHz rx and continuous tune 3.5 to 460MHz tx. The continuously variable auto transformer design operates effectively without any added counterpoises as the continuously variable nature permits finding a good match when there is no "standard" counterpoise attached. In effect, it uses whatever ground paths are available as a counterpoise..... **$149.99**

PAR

OMNIANGLE ANTENNAS

10/6/2M, 220, 440 MHz (fixed/mobile). Complement to high-gain directional arrays, allowing all-direction local work and monitoring. Outperform halos, loops and turnstiles! Longer than halfwave dipoles. Coupled with a unique shape, yield a horizontally-polarized antenna (pattern within 0.8dB of a circle, exhibits wide bandwidth). Rated at 150W, their built-in matchbox and current balun allow feeding with 52Ω coax. Virtually eliminates detuning due to moisture. Stackable for 3–6dB omni-directional gain and lower radiation angle.

OA-28 10m, 28–30MHz **$74.99**
OA-50 6m, 49.5–54MHz **63.99**
OA-144 2m, 138–150MHz **54.99**
OA-222 222–224MHz..... **54.99**
OA-432 420–450MHz..... **54.99**

Stacking Harnesses for Two Belden 8213 and silver/gold/teflon connects, 70cm uses N-connectors.

SK-50 for OA-50 ..... **$36.99**
SK-144 for OA-144 ..... **34.99**
SK-432 for OA-432, type-N **54.99**

MP-1 Versatile Portable HF Antenna *(pictured with optional TRPD tripod)* Ideal for use with the FT-817, K2 or other rigs from QRP to 150W. 40-6M coverage and 80M with optional coil assembly. Comes with a telescopic whip section, and universal mount consisting of a 3-piece adjustable bracket with antenna mount, C-clamp and three 10-foot counterpoise wires. 5.5 ft **$150.99**

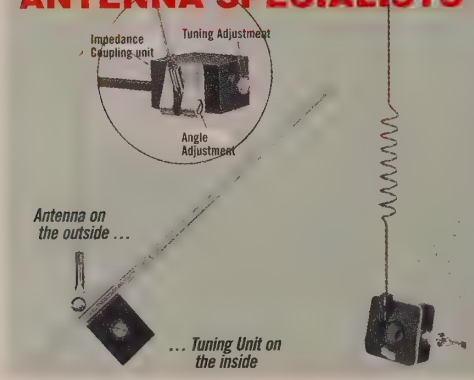
MP-80 80M Coil for MP-1 ..... **$25.99**

FT817MKT FT-817 Mount *(upper left)* Includes swivel bracket and antenna mount. Requires a short coax connection to radio..... **$20.99**

MBKT Mobile Kit *(right)* Includes 4' solid whip to replace telescopic unit and 2 ft. base rod.. **$15.99**

TRPD Universal Tripod **$20.99**

ANTENNA SPECIALISTS



"ON-GLASS™" MOBILE ANTENNAS

No holes to cut! The small tuning unit attaches to glass inside the vehicle and couples capacitively through the glass to the radiating element mounted on the outside. Installs with easily-removable adhesive. Includes adhesive, 15' coaxial cable with PL-259 connector • 100W • 144-174MHz (APR-151.3), 138-150MHz (AP-143) • 6MHz, tunable bandwidth • Less than 1.5:1 VSWR • 50Ω nominal impedance • Electrical 1/2-wave radiator • Shunt fed, DC ground coupling unit • 33" (APR-151.3) 23" (AP-143) stainless steel, black DURACOAT™ finish whip • 15' RG-58/U cable with PL-259

APR-151.3 *(left)* 2m, on-glass, 33" high... **$69.99**
AP-143 *(right)* 2m cell "look-alike," 23"... **$69.99**

YP-1 QRP Portable Field Yagi A 2-element driver/reflector Yagi that covers 20, 17, 15, 12, 10 and 6 meters. Provides improved performance over fixed doublets, base-loaded, mobile, and other vertical antennas; and single loaded dipoles of the same element length even when operated as low as 20 feet above the ground. Designed with the fewest possible parts and quick snaps, it allows for fast and easy set-ups. Feeds directly with 50Ω coax. Fits into a 36" carrying bag. • 7 lbs..... **$439.99**

B&W

BARKER & WILLIAMSON ANTENNAS and ACCESSORIES

The Highest Quality and Most Experience in the Antenna Business

Cover HF with one antenna - *The Way the Pro's Do*

Broadband Folded Dipoles cover 1.8-30 Mhz continuous

- ✓ *Military, Government, Homeland Defense*
- ✓ *Ham, CAP, MARS, ARES, RACES, FEMA*
- ✓ *True continuous agile frequency coverage*
- ✓ *SWR less than 2:1 from 1.8-30 Mhz in 90 Ft*
- ✓ *No antenna tuner required*
- ✓ *Lowest noise for unmatched reception*
- ✓ *Completely assembled, ready to use*

AC-5-30 ---------- 5.0 to 30 Mhz, 65 Ft, Copperweld wire
ACS-5-30 ---------- 5.0 to 30 Mhz, 65 Ft, Stainless wire
BWD-1.8-30 -------- 1.8 to 30 Mhz, 90 Ft, Copperweld wire
BWDS-1.8-30 ------- 1.8 to 30 Mhz, 90 Ft, Stainless wire
FDMK ---------- Mounting Kit

Tens of thousands of these antennas have been supplied to the US military, NATO, UN, Red Cross, and other similar agencies. They can be found on every continent in the world.

DEED RESTRICTED? NO PROBLEM!

AP-10A WINDOW / BALCONY MOUNT PORTABLE ANTENNA

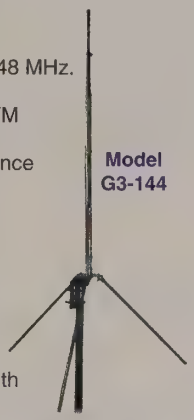
2 - 40 METERS • 300 WATTS

Check our website for complete information on these and other items. All items manufactured in the USA.
321-639-1510 www.bwantennas.com

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

Model G3-144

The G3-144 is the newest addition to the Hustler Base Station line. Designed with the cost conscious amateur in mind, this small, inexpensive antenna delivers more gain than other antennas in its price range. Ideal for a home or emergency command post

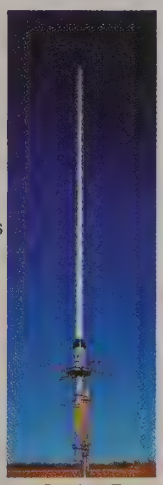


Model G3-144

ELECTRICAL
- Frequency Range: 144-148 MHz.
- Gain: 3 dB
- Maximum Power: 1 KW FM
- Bandwidth: 4 MHz
- VSWR: < 1.5:1 @ resonance
- Impedance: 50 ohms

MECHANICAL
- Termination: SO-239
- Length: 7' 5"
- Weight: 2.0 lbs
- Wind Survival: 100 mph.
- Wind Area: 0.5 ft.²
- Mounting: 1 to 1 ¾"
- Construction: High strength fiberglass & aluminum.

Model G6-270R
Dual band
2 Meter & 440 MHz



G6-270R

ELECTRICAL
- Frequency range: 144-148 MHz, 435-455 MHz.
- Gain: 6 dB
- Maximum power: 100 Watts
- Bandwidth: 4 MHz – 2 Meters 10 MHz – 440 Meters
- VSWR: < 1.5:1 @ resonance
- Impedance: 50 ohms

MECHANICAL
- Termination: N female
- Length: 7' 6"
- Weight: 5.3 lbs.
- Wind Survival: 100 mph
- Wind Area: 1.4 ft.²
- Mounting: Up to 1 ¾"
- Construction: one piece radome

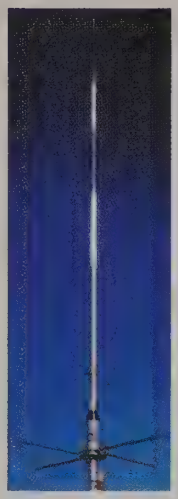
Model G6-440 (see photo above)

ELECTRICAL
- Frequency range: 440 - 450 MHz.
- Gain: 6 dB
- Maximum power: 1 KW FM
- Bandwidth: 10 MHz.
- VSWR: < 1.5:1 @ resonance
- Impedance: 50 ohms

MECHANICAL
- Termination: Type N female
- Length: 7' 3"
- Weight: 5.0 lbs.
- Wind survival: 100 mph.
- Wind Area: 1.4 ft.²
- Mounting: Up to 1 ¾"
- Construction: one piece radome

VHF and UHF Omni Directional Fixed Station Vertical Antennas

Model G7-144
Two Meter



The G7-144 is totally self supporting and is easily assembled. When disassembled the longest part is approximately 4' which makes it easy to handle and ship via UPS.

ELECTRICAL
- Frequency Range: 144 - 148 MHz.
- Gain: 7 dB
- Maximum Power: 1 KW FM
- Bandwidth: 4 MHz.
- VSWR: < 1.5:1 @ resonance
- Impedance: 50 ohms

MECHANICAL
- Termination: N female
- Length: 15' 4"
- Weight: 10.0 lbs.
- Wind survival: 100 mph
- Wind Area: 0.96 ft.²
- Mounting: Up to 1 ¾"
- Construction: High strength fiberglass & aluminum.

Model G6-144B
Two Meter (see photo above)

ELECTRICAL
- Frequency range: 143 - 149 MHz.
- Gain: 6 dB
- Maximum power: 1 KW FM
- Bandwidth: 6 MHz.
- VSWR: < 1.5:1 @ resonance
- Impedance: 50 ohms

MECHANICAL
- Termination: SO-239
- Length: 9' 9"
- Weight: 6.8 lbs.
- Wind survival: 100 mph.
- Wind Area: 1.4 ft.²
- Mounting: Up to 1 ¾"
- Construction: High strength fiberglass & aluminum.

Model G7-220 (see photo above)

ELECTRICAL
- Frequency range: 220 - 225 MHz.
- Gain: 7 dB
- Maximum power: 1 KW FM
- Bandwidth: 5 MHz.
- VSWR: < 1.5:1 @ resonance
- Impedance: 50 ohms

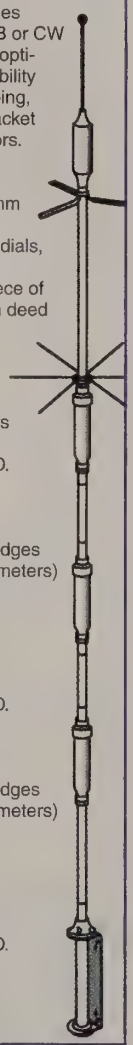
MECHANICAL
- Termination: Type N female
- Length: 10' 2"
- Weight: 7.0 lbs.
- Wind survival: 100 mph.
- Wind Area: 0.96 ft.²
- Mounting: Up to 1 ¾"
- Construction: High strength fiberglass & aluminum.

Fixed Station Multi-Band HF Vertical Antennas

Our exclusive trap design offers the lowest loss possible. A special extrusion process allows us to produce trap covers to an otherwise unattainable close tolerance, assuring accurate and permanent resonance. Our highly accurate traps provide top signal reports and consistent contacts.

Accurate tuning is made possible by the wide range of tuning flexibility designed into our verticals. Not only can you use the normal adjustable tubing to change resonance, but the traps themselves can be field tuned for an additional 2 MHz. shift. This flexibility will enable you to achieve a good S.W.R. even if your installation is not ideal.

- Broadbanded – low VSWR at band edges
- Power capability – full legal limit on SSB or CW
- Solid one inch fiberglass trap forms for optimum electrical and mechanical stability
- Heavy wall, high strength aluminum tubing, heavy duty aluminum mounting bracket and low loss, high strength insulators.
- Stainless steel clamps and hardware.
- Easy assembly and tuning.
- Single line feed with any length of 50 ohm coax.
- Use as ground mount with or without radials, or elevated mount with radials.
- All of the BTVs can be mounted in a piece of PVC and disguised as a flagpole in deed restricted neighborhoods.



Model 6-BTV

Bands 10-15-20-30-40 & 75 or 80 meters
Length/weight 24 ft. / 16.5 lbs.
Mounting Vertical support up to 1.75" O.D.
Wind Load 29 lbs. @ 70 mph.
Power capability Full legal limit SSB/CW
VSWR at resonance 1.15 to 1 or better
Bandwidth VSWR 2:1 or better at band edges on 10-40 meters (100 KHz. On 75 or 80 meters)

Model 5-BTV

Bands 10-15-20-40 & 75 or 80 meters
Length/weight 25 ft. 1 in. / 16.5 lbs.
Mounting Vertical support up to 1.75" O.D.
Wind Load 29 lbs. @ 70 mph.
Power capability Full legal limit SSB/CW
VSWR at resonance 1.15 to 1 or better
Bandwidth VSWR 2:1 or better at band edges on 10-40 meters (100 KHz. On 75 or 80 meters)

Model 4-BTV

Bands 10-15-20-40 meters
Length/weight 21 ft. 5 in. / 15 lbs.
Mounting Vertical support up to 1.75" O.D.
Wind Load 28 lbs. @ 70 mph.
Power capability Full legal limit SSB/CW
VSWR at resonance 1.15 to 1 or better
Bandwidth VSWR 1.6:1 at band edges

Model 30-MTK

30 meter add on kit for the 4 and 5 BTV

The Spirit Series

Hustler's ominidirectional, collinear design base station antennas are enclosed in a rugged fiberglass radome that will help minimize pattern variations due to high winds or extreme conditions. We offer these antennas in 144, 220, 440, 900 MHz and 1.2 Ghz. The gain will be unity, 3,6,9, or 12 dB depending on the frequency. Custom frequencies available, call AES for a quote.

www.new-tronics.com

New-Tronics Antenna Corporation
One New-Tronics Place
Mineral Wells, Texas 76067-9563

Phone: **940.325.1386**
Toll Free: **877.994.9499**
Fax: **940.328.1409**

VHF and UHF Mobile Antennas

Unity Gain

THF

VHF/UHF Trunk Lip Mount Antennas.

- Frequency range: 140-500 MHz
- ¼ wave length
- Cut length for low VSWR
- 15 ft RG58/U with PL-259 connector

UHT-1

VHF/UHF Roof/Deck Hole Mount Antenna.

- Frequency range: 140-500 MHz
- ¼ wave length
- Cut length for low VSWR
- 15 ft RG58/U

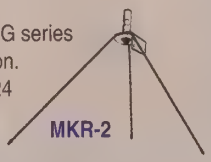
UGM

VHF/UHF Magnetic Mount Antenna

Extend the range of handheld or portable radios. Trimmable 17-7 PH stainless steel radiator is cut to ¼ wavelength for low SWR and unity gain from 140 to 500 MHz. Trim chart included. Highly efficient mylar protected magnetic mount attaches conveniently to magnetic compatible surfaces. No drilling! Supplied ready for operation with 10 ft. of mini-coax with BNC connector

MKR-2 Radial Kit

Used to convert RX, SF & CG series coils to fixed station operation. Mount can accept any 3/8x24 threaded coil and contains three radials



Collinear

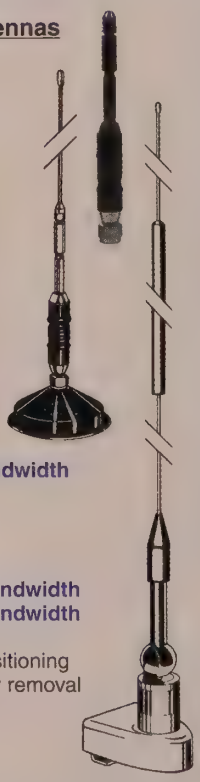
Series Fed Mobile Antennas

SF-2 144 MHz 3.4 dB
SF-220 220 MHz 3.4 dB

- Power rating: 100 watts
- 3/8" x 24 thread
- 5/8 wave

RX-2 144 MHz 3.4 dB
RX-220 220 MHz 3.4 dB
RX-440 440 MHz 5.0 dB

- Coil same as above
- 3 oz magnet
- 15 ft RG-58/U coax
- PL-259 connector



Collinear High Gain Mobile Antenna

CG-144 5.2 dB 6 MHz Bandwidth
CG-220 5.2 dB 4 MHz Bandwidth

- Power rating: 200 watts
- 3/8"x24 thread
- 5/8 over ¼ wave
- Collinear design

CGT-144 5.2 dB 6 MHz Bandwidth
CGT-220 5.2 dB 4 MHz Bandwidth

- Coil same as above
- Swivel ball for vertical positioning
- Quick disconnect for easy removal
- Trunk mount base
- 17 ft RG58/U coax
- PL-259 connector

New-Tronics Antenna Corporation
One New-Tronics Place
Mineral Wells, Texas 76067-9563

MX Series NMO Magnetic Mount Antenna

MX-2	144 MHz	3.4 dB
MX-220	220 MHz	5.0 dB
MX-440	440 MHz	5.0 dB

- Power rating: 200 watts
- Chrome top
- NMO style coil
- 10 oz magnet
- 17 ft RG58/U coax & PL-259 connector

MX-2B	144 MHz	3.4 dB
MX-440B	440 MHz	5.0 dB

- Same as above but all black coil

BBG Series NMO Swivel Ball & Spring Antenna

BBG-144 3.4 dB
BBG-440-5 5.0 dB

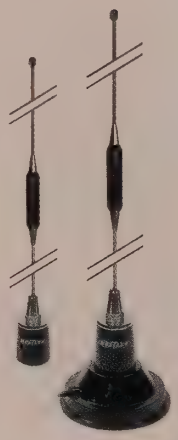
- Power rating: 200 watts
- NMO style coil
- Chrome top, swivel ball and spring

BBGT-144 3.4 dB
BBGT-440-5 5.0 dB

- Same coil as above
- Includes Trunk mount
- 17 ft RG58/U coax & PL-259 connector

Dual Band 2 meter/ 70cm Mobile Antennas

Hustler's new Dual Band antennas are designed to perform even in the toughest environments. Base coils are ultrasonically welded to ensure mechanical integrity and durability.



LMC-270

- 2.4 dB/4.0 dB gain
- Power rating: 100 watts
- NMO style coil
- Coil and whip only

MX-270

- 2.4 dB/4.0 dB gain
- Power rating: 100 watts
- NMO style magnetic mount
- 17 ft RG58/U coax & PL-259 connector

LM Series NMO Coils

LMG, LMC AND LMB Antennas are coil & whip only and require an NMO mount.

LMG-144	3.4 dB gain
LMG-440-5	5.0 dB gain

- Power rating: 200 watts
- NMO style coil
- Chrome top and bottom
- Contact-silver plated push pin

LMC-144	3.4 dB gain
LMC-440-5	5.0 dB gain

- Power rating: 200 watts
- NMO style coil
- Black coil with chrome top

LMB-144	3.4 dB gain
LMB-440-5	5.0 dB gain

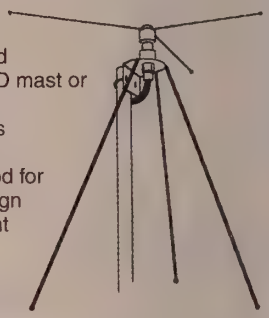
- Power rating: 200 watts
- NMO style coil
- Black coil

HUSTLER®

Scanner Base Station Antenna

Hear more at a greater distance with Hustler's external omnidirectional scanner antennas.

DCX



- 40 – 950 MHz
- Vertically polarized
- Mounts to 1 ¼" OD mast or flat surface
- 55" cone elements
- 20" disc elements
- Solid aluminum rod for high strength design
- Hardware & mount included

DCL

- Same as DCX
- 50 ft RG58/U coax with PL-259 on one end and BNC or Pin plug on the other end

Mobile Scanner Antenna

Hear all of the action in your car. Covers 30-50, 148-174, 430-450, 800-950 MHz

MRM

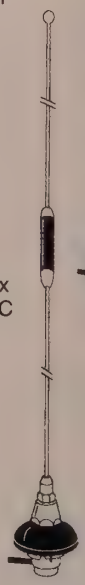
- 3 oz Magnet mount
- 12 ft RG58/U coax
- Available with BNC or Pin plug connector

MOT

- Trunk mount
- 15 ft RG58/U coax
- Available with BNC or Pin plug connector

MOR

- ¾" Roof or deck mount
- 12 ft RG58/U coax
- Available with BNC or Pin plug connector

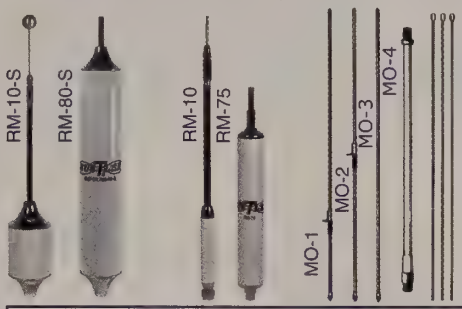


Phone: **940.325.1386**
Toll Free: **877.994.9499**
Fax: **940.328.1409**

Amateur HF Mobile 10,12,15,17,20,30,40,75 and 80 Meter

If you are serious about HF mobile operation the **Hustler** HF Mobile System is the obvious choice. **Hustler** manufactures and sells more HF mobile antennas world wide than anyone. No other manufacturer offers the convenience, the flexibility or the pure performance that **Hustler** does. Our HF Mobile System offers a wide variety of components which enable you to customize your installation to fit your present and future needs. A choice of four different support masts provides an installation solution for every vehicle. A selection of seventeen interchangeable resonators in high and moderate power levels and varying bandwidths are available. A full complement of accessories such as springs, a multiband adapter and a quick disconnect device complete the system. Experience the satisfaction that comes with owning the best in the world — the **Hustler** HF Mobile System.

Model	Type	Band	Power SSB	Bandwidth 2:1 SWR	Weight lbs
RM-10	Standard	10 m	400 W	150-250 KHz	0.41
RM-11	Standard	11 m	400 W	150-250 KHz	0.41
RM-12	Standard	12 m	400 W	90-120 KHz	0.41
RM-15	Standard	15 m	400 W	100-150 KHz	0.42
RM-17	Standard	17 m	400 W	120-150 KHz	0.44
RM-20	Standard	20 m	400 W	80-100 KHz	0.46
RM-30	Standard	30 m	400 W	50-60 KHz	0.84
RM-40	Standard	40 m	400 W	40-50 KHz	0.84
RM-75	Standard	75 m	400 W	25-30 KHz	1.05
RM-80	Standard	80 m	400 W	25-30 KHz	1.05
RM-10S	Super	10 m	1 kW	250-400 KHz	1.00
RM-11S	Super	11 m	1 kW	250-400 KHz	1.00
RM-15S	Super	15 m	1 kW	150-200 KHz	1.20
RM-20S	Super	20 m	1 kW	100-150 KHz	1.25
RM-40S	Super	40 m	1 kW	50-80 KHz	1.80
RM-75S	Super	75 m	1 kW	50-60 KHz	2.10
RM-80S	Super	80 m	1 kW	50-60 KHz	2.10



Mobile HF Antennas
Hustler Masts

MO-1
Mobile mast 54" length, for bumper, fender or hitch mounting. Folds over at 15" above base. Made of highest quality heat treated Stainless steel and aluminum parts. 3/8" x 24 threaded

MO-2
Mobile mast, 54" length, for bumper, fender or hitch mounting. Folds over at 27" above base. 3/8" X 24 threaded

MO-3
Mobile mast, 54" length, for bumper. fender or hitch mounting. solid aluminum with white vinyl coating. Does not fold over. 3/8" X 24 threaded

MO-4
Mobile mast 22" length, trunk or deck mounting. Three retuning tip rods included. 3/8" X 24 threaded

Professional Chrome Series

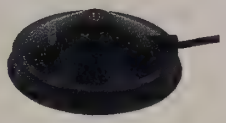
C-32
Chrome plated 1 ½" ball mount. Furnished complete with rubber pad, steel backup plate, all mounting hardware and hex key.

C-30
Chrome plated 4" spring. Copper braided center conductor to prevent detuning. Accepts 3/8" x 24 antennas

C-29
Stainless steel 4" spring. Copper braided center conductor to prevent detuning. Accepts 3/8" x 24 antennas

Resonator Spring
RSS-2
Finest quality stainless steel spring for use between resonator and Hustler antenna mast. This 3" spring absorbs shock when the antenna strikes overhanging obstructions. Supplied ready for easy installation with 3/8" x 24 threads, female on one end, and male on the other. Copper braided center conductor to prevent detuning.

Magnet Mount
MBM "Super" Magnet



- 95 lbs. Pull strength
- Powerful 5 inch diameter magnet
- 8 pole magnet
- 16 feet RG 58/U coax with PL-259 connector.
- 3/8" x 24 female threads
- Recommended for antennas up to 48".

Quick Disconnect
QD-2
100% Stainless Steel. Remove antenna from mount in seconds with push and twist release. Every part including the compression spring is manufactured from the best available 100% stainless steel. Special design of enclosed compression and lock assembly assures freedom against ice and dirt jam up. Accommodates small, medium and large mobile antennas. Equipped with 3/8" x 24 threads, female on one end and male on the other.

VP-1
Automatic bandswitching using any three Hustler HF resonators. Adapts any Hustler HF mast to tri-band operation. No additional tuning necessary.

Bumper Mount BM-1

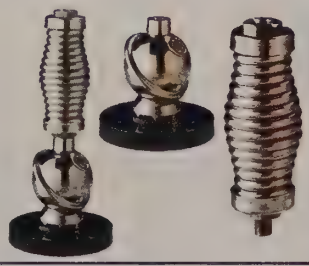
Design is rugged for supporting Hustler antennas with the Standard or Super resonators. Heavy stainless steel strap, stronger than chain, fits most bumpers inconspicuously. Assembly is easily installed and held rigid by "J" bolts at the top and a bumper strap clamp at the bottom.

Professional Stainless Steel Series

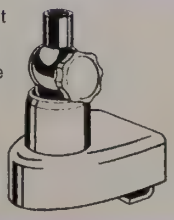
SSM-1
Heavy-duty mount with 4" stainless steel spring with copper braided center conductor to prevent detuning. 180 degree adjustable 2" diameter stainless steel ball. Accepts 3/8" x 24 antennas

SSM-2
Heavy-duty 2" diameter stainless steel ball mount. 180 degree adjustable. Accepts 3/8" x 24 antennas.

SSM-3
Heavy-duty stainless steel 4" spring with 3/8" x 24 coupling stud. Copper braided center conductor to prevent detuning.

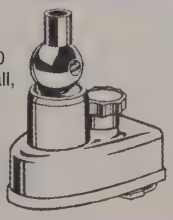


HLM Trunk lip mount designed for hatch and slanted back vehicles. 180 degree 1" diameter ball, which accepts 3/8 x 24 antennas. RG58/U coax with PL-259 connector.



TLM Trunk lip mount, which accepts 3/8 x 24 antennas. RG58/U coax with PL-259 connector.

HOT Trunk lip mount with easy off/on by using thumb knob. 180 degree 1" diameter ball, which accepts 3/8 x 24 antennas. RG58/U coax with PL-259 connector.



RVM Recreational vehicle mount with heavy duty bracket. Easy antenna removal or lay down with thumb knob. 1" ball that accepts 3/8 x 24 antennas. RG58/U coax with PL-259 connector.

2M/70CM Dual Band Series Antennas

Radiall/Larsen dual band antennas provide excellent performance for simultaneous use of VHF and UHF amateur frequencies. Each Radiall/Larsen dual band antenna is factory preset to guarantee optimum performance with no tuning required.

NMO-2/70-SH $40.99

Freq: 144-148/440-450 MHz
Gain: Unity
Power: 100 Watts
Type: VHF: Center Loaded 1/4
UHF: Center Loaded 3/4
Base: NMOUHFBASEB w/spring
Height: 17"
Whip: WNMO2/70SH

Lower profile amateur 2m/70cm dual band antenna with spring for NMO mounts.

NMO-2/70B (black) $65.99

Freq: 144-148/440-450 MHz
Gain: 2.4/4dB
Power: 100 Watts
Type: VHF: 5/8 Wave
UHF: Collinear
Base: NMO2/70BCO
Height: 33.5"
Whip: W2/70B

Amateur 2m/70cm dual band antenna for NMO mounts. Available in chrome (below).

NMO-2/70C (chrome) $60.99

Freq: 144-148/440-450 MHz
Gain: Unity
Power: 100 Watts
Type: VHF: 5/8 Wave
UHF: Collinear
Base: NMO2/70BCO
Height: 36.75"
Whip: W2/70

Amateur 2m/70cm dual band antenna for NMO mounts. Available in black (above).

MM-2/70 ..... $50.99

Freq: 144-148/440-450 MHz
Gain: Unity
Power: 100 Watts
Type: VHF: Center Loaded 1/4
UHF: Center Loaded 3/4
Base: 3' Round Mag Mount
Height: 17"
Whip: WNMOQ2/70B

Complete 2m/70cm magnetic moung antenna with 12' of RG58A/U coax.

NMOQ-2/70-B (black) $36.99

Freq: 144-148/440-450 MHz
Gain: Unity
Power: 100 Watts
Type: VHF: Center Loaded 1/4
UHF: Center Loaded 3/4
Base: NMOUHFBASEB
Height: 18"
Whip: WNMOQ2/70B

Kulglass Series High Performance Glass Mount Antennas

Radiall/Larsen's Kulglass™ (KG) series uses a patented low impedance design and advanced materials to produce the world's best on-glass antenna. The KG uses advanced resin polymer plastic to completely enclose the circuit board or loading coil for mechanical durability and weather resistance. 3M's best adhesive tape, plus Radiall/Larsen's unique bonding enhancer ensure the best possible grip to the glass.

KG-2/70-CX-PL $116.99

Freq: 144-148/442-448 MHz
Gain: 2.4/4.5dB*
Power: 50 Watts
Type: VHF: 1/2 Wave
UHF: Collinear
Base: KG2/700/S
Height: 32.5"

*Ground plane required for gain

Glass mount dual band antenna for 2m/70cm amateur radio frequencies.

KG-144-UD-PL $83.99

Freq: 144-160 MHz
Gain: 2.4dB
Power: 100 Watts
Type: 1/2 Wave
Base: KG1440/S
Conn: PL-259
Height: 48"
Whip: WKG144

Complete KG glass mount antenna.

KG-220-UD-PL $83.99

Freq: 220-225 MHz
Gain: 2.4dB
Power: 100 Watts
Type: 1/2 Wave
Base: KG2200/S
Conn: PL-259
Height: 26.5"
Whip: WKG220

Complete KG glass mount antenna.

KG-440-UD-PL $71.99

Freq: 440-460 MHz
Gain: 2.4dB
Power: 100 Watts
Type: 1/2 Wave
Base: KG440O/S
Conn: PL-259
Height: 15"
Whip: WKG440

Complete KG UHF glass mount antenna with coax and connector.

Radiall/Larsen Exclusive Kulduckie Portable Series

Superior transmit range and tough mechanical durability are the hallmark of Radiall/Larsen portables. All center cores are made of brass or copper plated steel to maximize RF emission. Fully soldered connections and silver-plated components improve electrical efficiency. Double spring BNC's also reduce wear on the mount. Other styles available.

KD4-146 ..... $20.99

Freq: 144-148 MHz
Gain: Unity
Power: 25 Watts
Type: 1/4 Wave Helical
Conn: BNC
Height: 8"

KD4-146-HQ (2m) $25.99

Freq: 144-148 MHz
Gain: Unity
Power: 25 Watts
Type: 1/4 Wave Helical
Conn: BNC
Height: 8"

KD-14-2M-HW $38.99

Freq: 144-148 MHz
Gain: Unity
Power: 25 Watts
Type: 1/2 Wave Telescoping
Conn: BNC
Height: 8.5 to 42"
Whip: WKD142MHW

KD4-2/70 ..... $35.99

Freq: 144-148/442-448 MHz
Gain: Unity
Power: 25 Watts
Type: VHF: Loaded 1/4 Wave
UHF: 1/4 Wave
Conn: BNC
Height: 8"

Impedance matching transformer provides high Q and deeper resonance.

Hear The Difference

Industry's Best NMO Mobile Antennas

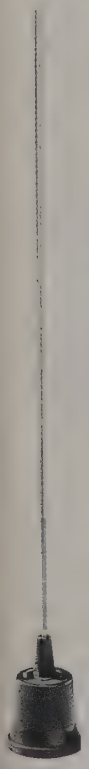
Radiall/Larsen's own version of the standard 3/4" Motorola TAD/TAE type mount uses advanced design, materials and construction to provide a premium mount. For demanding outdoor applications, the chemical resistant NMO series is housed in a resin polymer plastic shell which is completely molded around the nickel plated brass whip stud to eliminate moisture damage. Our superseal gasket also greatly reduces water intrusion under the base.

NMO-27C (chrome) $33.99

Freq:	27-31 MHz
Gain:	Unity
Power:	200 Watts
Type:	Loaded 1/4 Wave
Base:	NMO27BCO
Height:	53"
Whip:	W490

NMOQ-SPEC $13.99

Freq:	136-512 MHz
Gain:	Unity
Power:	200 Watts
Type:	1/4 Wave
Height:	21"



NMO-150C (chrome) $30.99
NMO-150B (black) $33.99

Freq:	144-174 MHz
Gain:	3dBd
Power:	200 Watts
Type:	5/8 Wave
Base:	NMO150BCO
Height:	51.75"
Whip:	W490

NMO-220C (chrome) $30.99
NMO-220B (black) $36.99

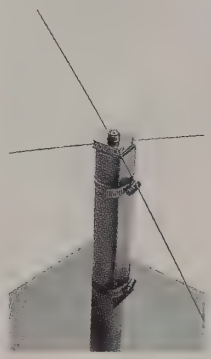
Freq:	220-225 MHz
Gain:	Unity
Power:	200 Watts
Type:	5/8 Wave
Base:	NMO220BCO
Height:	34.5"
Whip:	W400

NMO-440C (chrome) $29.99
NMO-440B (black) $35.99

Freq:	440-460 MHz
Gain:	4.5dBd
Power:	200 Watts
Type:	5/8 over1/2 Wave
Base:	NMOUHFBASEB
Height:	33""
Whip:	W154

Base Station Antennas

Radiall/Larsen manufactures a variety of small base station for directional and omni-directional applications. Each base station antenna is designed with premium materials to withstand the most demanding weather conditions. All base station antennas come with mounting hardware to attach to a pole up to 2" in diameter.



BSA-K $53.99

Freq:	144-512 MHz
VSWR:	1.5:1 or less
Power:	200 Watts
Conn:	UHF Female
Whip:	51-3/4"

Complete base station kit for designing a base station unit from 144-512 MHz. Comes with mounting hardware (antenna is extra). Works with NMO and UHF mount antennas.

Mounts

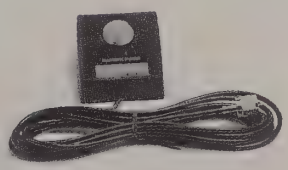
Larsen has a full line of permanent and temporary mounts to solve nearly every installation problem. Each mount is manufactured of the highest quality materials, including premium coax.

NMO-K $15.99
Motorola style roof mount

Size: 3/4"
Coax: 17' RG-58A/U
Conn: PL-259

NMO-MM $32.99
Motorola style magnetic mount

Size: 3-1/2" x 3" Rectangle
Coax: 12' RG-58A/U
Conn: 58FCP
Pull Strength: 90 lbs.

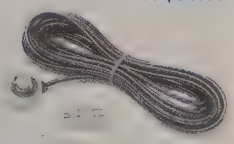


NMO-TLP $29.99
Motorola style trunk lip bracket, black

Size: 1-3/4" x 1-3/4"
Coax: 17' RG-58A/U
Conn: PL-259

PO-K $30.99
SO-239 female type roof mount

Size: 3/4" hole
Coax: 17' RG-58A/U
Conn: PL-259

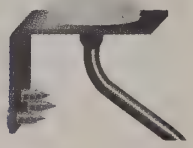


PO-MM $36.99
SO-239 female type magnetic mount

Size: 3-1/2" x 3" Rectangle
Coax: 17' RG-58A/U
Conn: 58FCP
Pull Strength: 90 lbs.

TMB-34 (chrome) $5.99
TMB-34B (black) $7.99
Trunk mounting bracket for NMO antenna.

Size: 1-5/8" x 1-5/8"
Mount: NMO



Parts and Accessories

W-490 ..... $9.99
Chrome .100 tapered replacement whip for 144 MHz. (49")

W-490B $12.99
Black .100 tapered replacement whip for 144 MHz. (49")

W-2/70B $27.99
Black .100 dia. replacement whip for NMO 2/70B (approx. 31")

RADIALL/LARSEN
antenna technologies

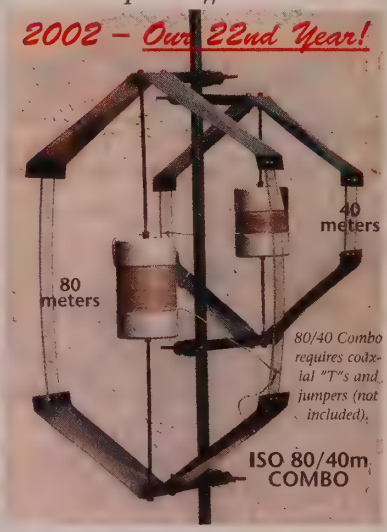
Radiall/Larsen Antenna Technologies
3611 NE 112th Avenue
Vancouver, WA 98682
360 944-7551, Fax: 360 944-7556
Email: info@radialllarsen.com
Web: www.radialllarsen.com

ISOTRON
BILAL COMPANY

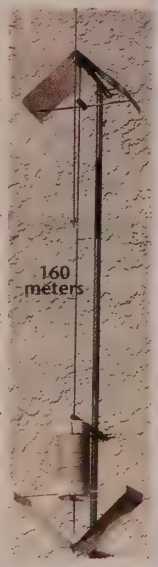
See product reviews **73 Magazine:** Oct. '84, Sept. '85, Mar. '86, Nov. '94, Apr. '96. **CQ magazine:** Dec. '88. **WR:** Mar '91.
Copies available send SASE: **BILAL COMPANY**
137 Manchester Dr. Florissant, CO 80816 • 719/687/0650

Antennas for Very Limited Space
Simple & Effective...

2002 – Our 22nd Year!



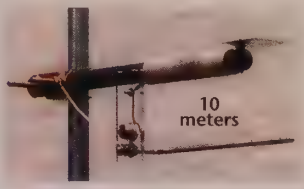
- Solve restricted space problems.
- Easy, quick, and simple installation.
- Handles up to 1,000 watts PEP.
- Excellent portable operation - emergencies, RV's, field day, motels, Maritime operation.
- Not dependent on a grounding system for performance.
- Unobtrusive appearance, making a very discreet looking installation.
- Very Stealth.
- Excellent Low Noise reception and transmitting quality performance is not compromised by its compact design.
- Tunes and performs without radials.
- Multi-band operation on one feedline with back to back mounting. Any other combination of three bands may be substituted on special order.
- Durable construction, can be used in extreme weather conditions, will not bend in high winds. No motors or mechanical tuning devices to fail.



Common Specifications: 1000W PEP power rating (300W, CW, AM, FM, RTTY) • 50–75Ω coax feed • Omni-directional radiation pattern • Bandwidth shown is within 2:1 SWR but may vary with environment • Stainless steel fasteners • Zinc plated u-bolts • Tempered aluminum components • Cast acrylic and PVC insulators • THHN #14 solid copper coils • 85 mph wind rating

Individual Specifications:

Model	160C	80	40	20	15	10	6
Band	160 meters	80 meters	40 meters	20 meters	15 meters	10 meters	6 meters
Freq. (MHz)	1.8-2.0	3.5-4.0	7.0-7.3	14-14.35	21-21.450	28-30	50-54
hxwxd (in.)	114 x16x15	32x16x15	22x16x15	21x8x4	21x1½x4	16x1½x4	16½x2x4
BW	100kHz	110kHz	250KHz	350kHz	450kHz	1MHz	1.25MHz
Windload (sq. ft.)	1.697	1.37	1.0	0.23	0.23	0.16	0.13
Weight	7 lbs.	6 lbs.	4 lbs	2 lbs	2.0 lbs	1.5 lbs	1.5 lbs.
PRICE	**$173.99**	**$98.99**	**$88.99**	**$78.99**	**$78.99**	**$78.99**	**$78.99**



Multiband Models (top & right)

80/40 COMBO Same as individual model specifications above. Operate 80/40 meters with one feed line 32"x16"x30", 2.37 sq. ft. 10 lbs..... **$169.99**

20/15/10 COMB Covers same as individual model specifications above. Operates 20/15/10 meters with just one feed line..... **$198.99**

SPECIAL ORDER! – **You can make up your own combination. Substitute 30m for 40m in the 80/40 Combo or 17m for 15m in the 20/15/10 Combo. MARS, CAP and Commercial models available.**

DIAMOND ANTENNA

D-130J Super Discone Copied by many, equaled by none. Professional quality. Ultra-wideband omnidirectional – receives amateur, air traffic control, police, fire and other utilities from 25-1300MHz. Can transmit 80-1300MHz (50MHz with adjustment). Rustfree stainless steel employed in major component parts. Ideal antenna for scanners and receivers. Use standard RG213 or RG8X coax. Mast mounting U-bolts included. 67"h, 2.2 lbs..... **$89.99**

AOR®

NEW

LA-350 Active Shortwave Loop Two 12" diameter interchangeable antenna elements cover 3.0 to 9.0 and 9.0 to 30MHz. Rotates to enhance reception and null unwanted interference. Built-in 13.5 dB gain amplifier and tuning control to peak performance. Supplied with two elements, AC adapter, instruction manual and 20 inch cable with BNC connector.....**Milwaukee only $299.99**

Van Gorden Engineering

DIPOLE ANTENNAS

Complete with Hi-Q 1:1 balun, #14 stranded copper antenna wire, plastic insulators, and 100 ft. of nylon rope. Rated for full legal power. May be used in an inverted-V configuration.

D-80 80m, 130' **$32.99**
D-40 40m, 66'..... **29.99**
D-20 20m, 33'..... **28.99**
D-15 15m, 22'..... **27.99**
D-10 10m, 16'..... **26.99**

Shortened Dipoles Construction is the same, and includes traps as shown above.

SD-80 80m, 90'..... **$36.99**
SD-40 40m, 45' **34.99**

ALL BANDER All Bander Dipole Covers 160 to 10M using an antenna tuner with balanced output. Full 135 ft. long (or less, as an inverted V or sloper). Trim to fit small lots. Assembled, with #14 gauge copper wire, center and end insulators and 100 ft. of 450Ω balanced line. 2KW PEP..... **$29.99**

SHORTY All Bander As above, but with loading coils to shorten the length to 70' overall... **$44.99**

MULTIBAND ANTENNAS

G5RV Covers 3.5–30MHz, plus 1.8MHz as a Marconi-type antenna with a tuner. Consists of a 102 ft. flat top with a 31' long section of 300Ω (450Ω for models below) KW twinlead, a transformer/coupler and 70 ft. of RG-8X coax and connector. 2KW PEP, assembled..... **$50.99**

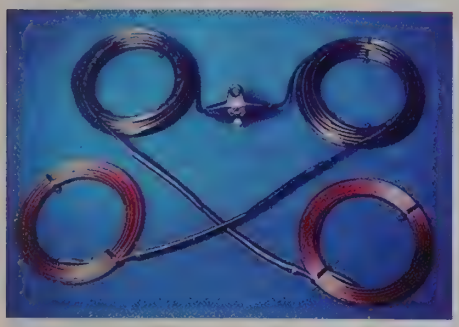
G5RV JR 7–30MHz , 52', 17' twinlead **24.99**
G5RV-E 3.5–30MHz, 102', 31' twinlead **28.99**
G5RV-M 1.8–30MHz, 204', 65' twinlead **50.99**

ANTENNA SUPERMARKET

EAVES TWIN The Eavesdropper Shortwave Broadcast Receiving Antenna A 42 ft. long center-fed dipole with 8 automatic bandswitching trap circuits which electrically separate the antenna segments – just tune your receiver to the desired band. The Eavesdropper covers the 11, 13, 16, 19, 21, 25, 31, 41, 49, 60, 75 and 90 meter bands. Includes The Zap-Trapper® gas-tube lightning arrestor for receiver protection and 50 ft. of 450-pound test support rope. Completely assembled, ready to use. With 100' of 72Ω twin lead **$89.99**

EAVES SO239 With weather-proofed SO-239 coaxial center connector, coax not included . **$89.99**

www.iacantennas.com



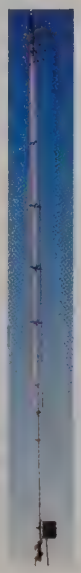
Double Bazooka Half Wave Antennas are constructed with a flat-top of 50Ω coax and a section of 300Ω transmission line at each end. The shield is split in the middle, but the center conductor and insulation are left intact. The feedline connects to the split shield which becomes the radiating element. This results in quiet, broadband operation with 98% efficiency and a 50Ω balanced feedpoint without a balun. Mount horizontally or as an inverted V. Handles legal RF power limit. Has weatherproof center insulator, feeds directly with 50Ω coax with PL-259 connector. The 80m version will operate efficiently on 80-10m with antenna tuner.

160M Bazooka 1.8MHz (160M), 248'. **$214.99**
80M Bazooka 3.5MHz (75-80M), 121'... **150.99**
40M Bazooka 7MHz (40M), 64'..... **126.99**

Half Sloper Antennas An extremely broad-banded antenna that can operate efficiently across an entire Ham band with less than a 2:1 VSWR. It's a quarter wave length long, constructed from 50Ω coax in combination with a 300Ω transmission line end section. (looks like half of the Double Bazooka pictured). Mounts from a tower or vertical metal support for optimum results. Feeds directly with 50Ω coax with PL-259. Ground return is accomplished through a metal support. Handles full legal power.

160M-S 160M, 127 ft..... **$140.99**
80M-S 75-80M, 67 ft., operates 80-10m with antenna tuner..... **$115.99**

hy-gain



HF Vertical Antenna Effective counterpoise replaces radials and ground system • Automatic bandswitching with a single coax cable feed. Each band is individually tunable. Extra wide VSWR bandwidth. End fed with broadband matching unit. DC grounded. • Low angle of radiation - 17° for exciting DX. • 2.5 sq. ft. wind surface area • Small area required for mounting easily on roofs, decks and patios. • Handles full legal limit 1500W key down for two minutes • Aircraft quality aluminum tubing, stainless steel hardware; 80 mph wind survival.

AV-620 20-6M 6-Band No traps, coils or radials. 22.5' tall, 10.5 lbs..... **$269.99**

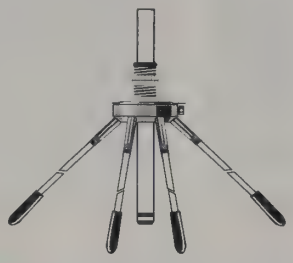
AV-640 40-6M 8-Band Uses 1/4-wave stubs on 6 thru 17M and end loading and capacity hats on 15 thru 40M. 25.5' tall, 17.5 lbs..... **$359.99**

SOLARCON ANTENNAS A99

A-99 10M Base Antenna with Twin Ring Adjust-A-Match Tuning Voltage-fed, half wave variable, mutual transfer inductance tuned antenna. It's economical and easy to use! The SOLARCON sealed base unit is tuned with external inductance rings. Impedance remains constant over the tuning range. Simple Tuning! Raising the tuning rings raises the frequency and lowering the rings lowers the resonant frequency.

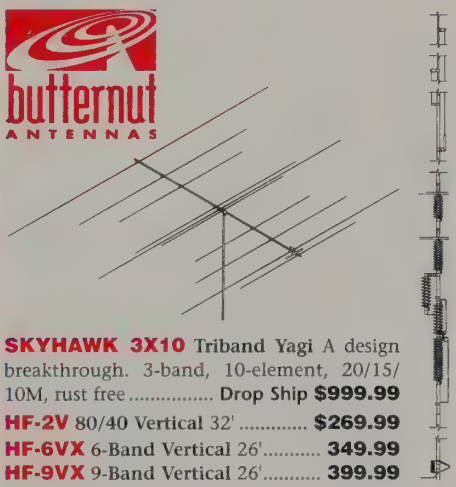
Rugged, three-piece, white fiberglass construction with triple-plated brass fittings. It's easy to assemble and install. The optional GPK-1 ground plane radial kit makes it perform even better!

• Full 10 meter band coverage • 3 dBi gain • 2kW power limit • Low angle of radiation for DX • DC grounded • Mounts on 1.5 in. mast • Uses 52Ω coaxial cable with SO-239 connector • 17 ft. 8 in. length..... **$64.99**



GPK-1 Groundplane Kit Use with the A-99 for 30% more power gain and lower angle of radiation. Collar and 4 fiberglass radials..... **$39.99**

butternut ANTENNAS



SKYHAWK 3X10 Triband Yagi A design breakthrough. 3-band, 10-element, 20/15/10M, rust free..... **Drop Ship $999.99**
HF-2V 80/40 Vertical 32'..... **$269.99**
HF-6VX 6-Band Vertical 26'..... **349.99**
HF-9VX 9-Band Vertical 26'..... **399.99**

Secure
www.aesham.com

COMET™

HF/VHF/UHF MOBILE ANTENNA

For radios that operate HF/6M/2M/70cm

UHV-6 Designed for 6 and 2M and 70cm basic operation without tuning. Additional coverage for 40, 15 and 10 meters may be added by installing the supplied coils for those bands. Coils for 20, 17, and 80M are optional. Choose either one, two, or three coils and add one to the top, and one or two to the side, in any combination. Automatic bandswitching. Each HF element tunes independently without effecting VHF/UHF.

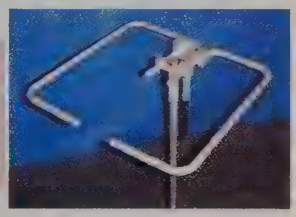
Only 7 ft. 2 in. tall with the 40M coil attached to the top. A unique fold-over hinge pivots approximately 5 inches from the bottom for garaging, entering parking structures, etc.

Installs on any standard SO-239 (PO) type mount; no special brackets are needed. Several duplexers/ triplexers are available for all multiband radios. – *see the index under duplexers for selection*..... **$149.99**

L-3.5 80M coil..... **34.99**
L-14 20M coil..... **29.99**
L-18 17M coil..... **29.99**
CF-530 1.3-90/125-470MHz dplxr. **69.99**
CF-706A 1.3-56/75-470MHz duplr **69.99**

CA-52HB4 Wide Band 6M Beam HB9CV, 4-element • 50MHz band frequency • 50Ω impedance • <1.5:1 (50-54 MHz) VSWR • 10.4dBi • Half power angle <54° • Over 19dB F/B ratio • 400W maximum power, SSB • Boom length, 10.5 ft. • 7.3 ft. turning radius • SO-239 connector • 1.0 to 2.5 in. mast diameter • 4 lbs, 14 oz..... **$119.99**

M²



HO Loops At times, when using highly directional VHF or UHF antennas, there are signals you cannot hear off the sides and back. The addition of an HO-Loop to your set-up will enable you to be aware of those stations you may be missing. Great for round tables, nets and monitoring for band openings.

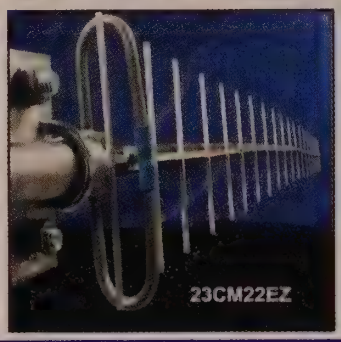
HO-Loops are horizontally polarized and omnidirectional, ideal for mobile or base operation with contacts up to 200 miles not uncommon. Typical gain is 4.0+ dBd, and power rated at 800W or 1.5kW stacked. They're easily adjustable and have a wide bandwidth that ensures high performance regardless of the weather.

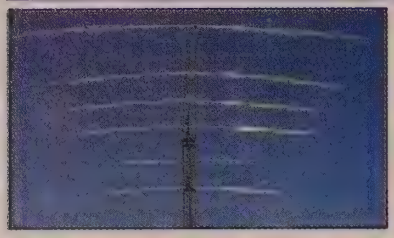
6M-HO-LOOP 50-50.3MHz, 29.5" sq.... **$113.99**
2M-HO-LOOP 144-144.5MHz 11.25" sq.... **49.99**
222-HO-LOOP 220-224MHz, 7.75" sq..... **49.99**
432-HO-LOOP 430-436MHz, 4.4" sq..... **49.99**

M² ANTENNAS - POSITIONERS - ACCESSORIES

AMATEUR COMMERCIAL GOVERNMENT SCIENTIFIC

We have always offered performance and we have held that standard as our line grew. We continue to expand our line with innovative, longer lasting, trouble free antennas. In some models we bridge from amateur to commercial notably with our 23CM22EZ and EGGBEATER antennas. You have to look long and hard to find this much high performance variety!





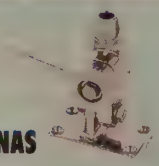
* NEW KT36XA TRIBANDER *

See the Price Guide for more products or check out the M² Website at www.m2inc.com

M2 ANTENNA SYSTEMS, INC. 7560 N. Del Mar. Fresno, CA 93711
(559) 432-8873 Fax (559) 432-3059 Website: www.m2inc.com Email: wyatt@m2inc.com

---

Shakespeare®



VHF MARINE ANTENNAS

4187 Ratchet Mount *(above)* Stainless steel. 4-way ratchet design with handle for deck or bulkhead mounting. Standard 1"–14 male threads..... **$36.99**

396-1 Center-fed 1/2 Wave Coaxial Sleeve Antenna Basic 3dB antenna designed to reduce signal fading when working in rough seas. Widely used by the Coast Guard. 5MHz bandwidth, 3dB gain, 50W • White Shakespeare fiberglass • Brass and copper elements • Deluxe chrome-plated brass ferrule • One section • 5 ft. length, 15' RG-58 cable with PL-259. Use 4187 ratchet mount..... **$59.99**

420 Skipper™ Center-fed 1/2 Wave Coaxial Sleeve Antenna Economical, and a good basic 3dB antenna for steady, day-to-day cruising in calm to moderate seas. Includes a polycarbonate lift/lay deck mount, leveling plate and hardware. 5MHz bandwidth, 3dB gain, 50W • White Shakespeare fiberglass • Brass and copper elements • Polycarbonate ferrule • One section • 5 ft. length, 15' RG-58 cable with PL-259..... **$59.99**

5101 Centennial™ End-fed Antenna with Matching Stub High-end features in an 8' antenna with a brass element and a smooth, high gloss, polyurethane finish that won't turn yellow in the sun. 5MHz bandwidth, 6dB gain, 50W • One section • Brass and copper elements • Chrome-plated brass ferrule with standard 1" x 14 thread • 8 ft. length • Includes 15 ft. RG-58 cable and a PL-259 coaxial connector. Use with 4187 ratchet mount..... **$49.99**

5206-C End-fed Antenna with Matching Stub Economical, lightweight and self-supporting antenna for good communications where range is not the predominant factor. 3MHz bandwidth, 6dB gain, 50W • White Shakespeare fiberglass • Chrome-plated brass ferrule • One section • DC grounded • 8' length, 15' RG-58 cable with PL-259. Use with 4187 ratchet mount..... **$39.99**

5202 Collinear-phased 5/8 Wave Elements A rugged, professional quality antenna featuring a heavier duty radome and tough brass and copper construction for maximum efficiency and extra range. 3MHz bandwidth, 6dB gain, 50W • White Shakespeare fiberglass • Chrome-plated brass ferrule • One section • DC grounded • 8' length, 20' RG-58 cable with PL-259. Use with 4187 ratchet mount..... **$69.99**

---

synthetic textiles, inc.

Black Dacron® Polyester Rope Constructed of strong double braid Dacron® polyester. It's black for UV protection and has excellent resistance to weather, mildew and abrasion. The rope ties and cuts easily and ends seal effectively with the application of a small flame or hot tool.

After a small initial "set" due to tightening of the braid, it has virtually no long term stretch, making it ideal for supporting dipoles, long wires, etc. Also, great for non-resonant guying of masts or towers. When used as an overhead boom support rope for beam antennas, it eliminates a conductive wire from the RF field, which is especially important in VHF/UHF applications.

100' 100 ft., 260+ lbs., 3/32" **$6.99**
100' 3/16 100 ft., 770+ lbs., 3/16" **14.99**
100' 5/16 100 ft., 1790+ lbs., 5/16" **19.99**
350' 350 ft., 770+ lbs., 3/16" **39.99**

We accept I.M.P.A.C.® Government Credit Cards

WINEGARD®
Clearly the World's Best®

TV-2900 Weatherproof Transformer 82 channel, matching transformer for indoor or outdoor use. Adapts 75Ω coaxial cable with F-connector to terminals of a 300Ω TV antenna, TV set or coupler. Includes F-connector and boot..... **$2.99**

RG-6 75Ω TV Coaxial Cable with cellular poly dielectric, #20 copperweld center conductor, 100% aluminum foil shield and 40% aluminum braid shield provides low-loss, good conductivity, flexibility and tensile strength. Weather-proof F-connectors installed.

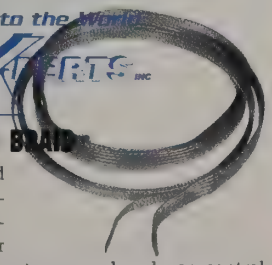
CX-0625 25 ft. length..... **$10.99**
CX-0650 50 ft. length..... **15.99**
CX-0675 75 ft. length..... **19.99**
CX-6100 100 ft. length..... **24.99**

CASTLE RIDGE PRODUCTS, INC.

COPPERWELD® Antenna Wire Forge-welding makes the two metals inseparable! Solid bare copper-over-steel wire – the best for antennas. Very strong, the steel core has very little stretch and long service life. The copper covering provides low RF resistance and solders easily. 12, 14 or 18 gauge.

AN-122 100 ft. #12..... **$26.99**
AN-123 150 ft. #12..... **36.99**
AN-124 250 ft. #12..... **52.99**
AN-126 500 ft. #12..... **94.99**
AN-128 1000 ft. #12..... **159.99**
AN-142 100 ft. #14..... **21.99**
AN-143 150 ft. #14..... **26.99**
AN-144 250 ft. #14..... **36.99**
AN-146 500 ft. #14..... **64.99**
AN-148 1000 ft. #14..... **109.99**
AN-181 250 ft. #18..... **15.99**
AN-182 500 ft. #18..... **26.99**

Connecting you to the World
CABLE XPERTS INC

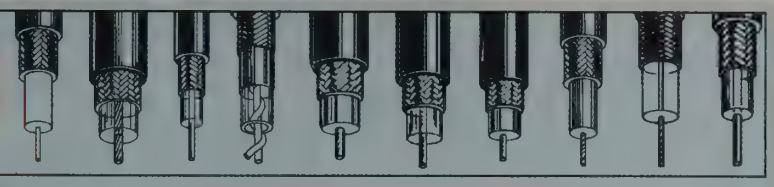


FLAT GROUNDING BRAID

Flat, flexible, and tinned for easy soldering. 1" size primarily used for grounding tower legs to ground rods or central point in a shack. From the central point, use 1/2" size to all equipment separately for best protection.

2332 1/2", 10 gauge, rated at 53A..... per ft. **59¢**
2332 100 100 foot roll of above..... **$52.99**
235 1", 7 gauge, rated at 85 amps..... per ft. **99¢**
235 100 100 foot roll of above..... **$92.99**

Belden



COAXIAL CABLE

See Belden in the Price Guide

Model	Type	Dia. (in.)	Center conductor	Insulation type	Shield coverage	Jacket type	Imp. (Ω)	Vel. factor	Loss/100' 100 MHz
8216	RG-174 Sub-miniature	.11	26 AWG bare copper coat steel	Solid polyethylene	90% tinned copper braid	Black PVC	50Ω	66%	8.4 dB
8219	RG-58A/U	.195	20 AWG stranded bare copper	Foam polyethylene	96% tinned copper braid	Black PVC	53.5Ω	73%	4.5 dB
8240	RG-58/U	.195	20 AWG solid bare copper	Solid polyethylene	95% tinned copper braid	Black PVC	51.5Ω	66%	3.8 dB
8259	RG-58A/U	.193	20 AWG stranded tinned copper	Solid polyethylene	95% tinned copper braid	Black PVC	50Ω	66%	5.4 dB
8262	RG-58C/U non-contaminating	.195	20 AWG stranded tinned copper	Solid polyethylene	95% tinned copper braid	Black. non-contaminating PVC	50Ω	66%	5.4 dB
9201	RG-58/U	.193	20 AWG solid bare copper	Solid polyethylene	78% bare copper braid	Black PVC	52Ω	66%	4.2 dB
9258	RG-8X Mini-8	.242	16 AWG stranded bare copper	Foam polyethylene	95% bare copper braid	Black PVC	50	82%	3.1 dB
8214	RG-8/U	.403	11 AWG stranded bare copper	Foam polyethylene	97% bare copper braid	Black PVC	50Ω	78%	1.7 dB
8237	RG-8/U	.405	13 AWG stranded bare copper	Solid polyethylene	97% bare copper braid	Black PVC	52Ω	66%	1.9 dB
8267	RG-213/U non-contaminating	.405	13 AWG stranded bare copper	Solid polyethylene	97% bare copper braid	Black. non-containating PCV	50Ω	66%	2.1 dB
9913	Low loss semi-flexible RG-8/U	.405	10 AWG solid bare copper	Semi-solid polyethylene	100% bonded foil plus 90% tinned copper. braid	Black PVC	50Ω	84%	1.3 dB
9913F7	Low loss flexible RG-8/U	.405	10 AWG stranded bare copper	Gas-injected foam polyethylene	100% bonded foil plus 90% tinned copper braid	Black Belflex®	50Ω	84	1.5 dB
9251	RG-8A/U non-contaminating	.405	13 AWG stranded bare copper	Solid polyethylene	97% bare copper braid	Black non-contaminating PVC	52Ω	66%	1.9dB
8241	RG-59/U	.242	23 AWG solid bare copper	Solid polyethylene	95% bare copper braid	Black polyethylene	75Ω	66%	3.4 dB
8213	RG-11/U	.405	AWG 14 solid bare copper	Gas-injected foam polyethylene	97% bare copper braid	Black polyethylene	75Ω	84%	1.3 dB
8238	RG-11/U	.405	18 AWG stranded tinned copper.	Semi-foam polyethylene	97% bare copper braid	Black PVC	75Ω	66%	2.0 dB

ROTOR CABLE

8448 Standard duty, 8 wire. Up to 100' runs. Six #22 and two #18 AWG tinned copper conductors. PVC insulation and PVC jacket.

9405 Heavy duty, 8 wire. Over 100' runs. Six #18 and twelve #16 AWG tinned copper conductors. PVC insulation and PVC jacket.

8484 Standard duty, 4 wire. Four #20 AWG tinned copper conductors. PVC insulation and PVC jacket.

See Belden in the Price Guide

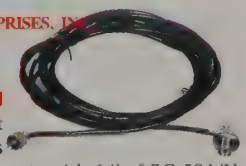
PREASSEMBLED COAXIAL HOOK-UP CABLES (INSTALLED)

9349 3' RG-58A/U foam, PL-259s..... C/O **$16.99**
9352 50' RG-58A/U foam, PL-259s..... C/O **28.99**
9354 50' RG-8/U low-loss foam, PL-259s.... **54.99**
9355 75' RG-8/U low-loss foam, PL-259s.... **79.99**
9356 100' RG-8/U low-loss foam, PL-259s.. **94.99**

ANTENNA & GROUND WIRE

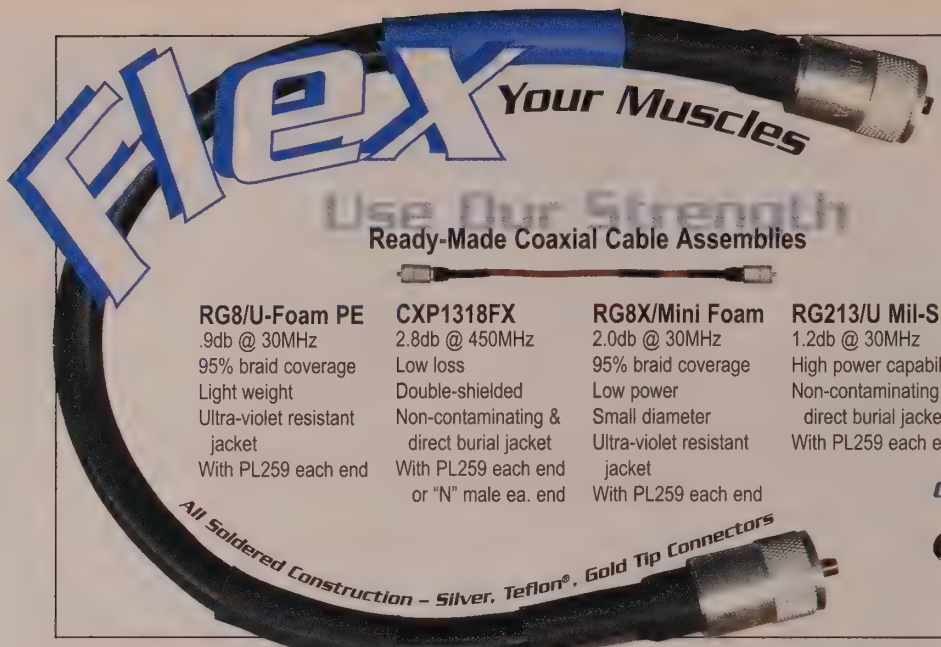
8000 #14 AWG (7x22) stranded bare copper-covered steel antenna wire.
8018 #8 AWG (solid) soft annealed aluminum ground wire – multiples of 50 ft.

MFJ MFJ ENTERPRISES, INC.



341S (SO-239)/**341M** (NMO) **Permanent Mobile Hard Mounts**
Top quality antenna mounts with 14' of RG-58A/U coaxial cable & PL-259 connector attached. Easily snakes around a vehicle to the best operating position. Perfect for MFJ *RuffRider*™ or other brands of mobile VHF/UHF antennas..... ea. **$19.99**

Look For This
NEW
& Check Out AES' Latest Additions.



Ready-Made Coaxial Cable Assemblies

RG8/U-Foam PE
.9db @ 30MHz
95% braid coverage
Light weight
Ultra-violet resistant jacket
With PL259 each end

CXP1318FX
2.8db @ 450MHz
Low loss
Double-shielded
Non-contaminating & direct burial jacket
With PL259 each end or "N" male ea. end

RG8X/Mini Foam
2.0db @ 30MHz
95% braid coverage
Low power
Small diameter
Ultra-violet resistant jacket
With PL259 each end

RG213/U Mil-Spec
1.2db @ 30MHz
High power capabilities
Non-contaminating & direct burial jacket
With PL259 each end

For optimum performance from your communications equipment. These precision USA made and tested assemblies will provide years of great service. Guaranteed to perform to specifications. For excellent cabling results, you can depend on CABLE X-PERTS, INC.

jake

Made In USA

Connecting you to the World™

CABLE X-PERTS INC
www.cablexperts.com

See Price Guide for Cable X-perts pricing.

AIM

ROTARY COAX CABLE STRIPPERS

For quick, clean prep of coaxial cable without damage. Insert coax, turn clockwise 4 or 5 times.

24-7735P for RG-58, RG-59, RG-62 ..... **$21.99**
24-7736P for RG-6, RG-59, 8281 ..... **21.99**
24-7739P for RG-8, RG-11, RG-213 ..... **28.99**

We accept I.M.P.A.C.® Government Credit Cards

CENTAUR ELECTRONICS

High Performance Baluns • State-of-the Art • 0.5 to 50MHz performance with advanced toroid transformer • 3KW SSB rated • Extended performance in hostile environments • Stainless steel hardware • Heavy-duty body materials • Military grade internal components • Dimensions: 3"dia. x 7"

B11W10-50 1:1, dipole **$54.99**
B11Y10-50 1:1, yagi **54.99**
B41Y10-50 4:1, yagi **69.99**
B41LW10-50 4:1, ladderline to coax **69.99**

UNADILLA

W2AU FERRITE BALUNS

These baluns replaces center insulator and provide a smooth transition from unbalanced coaxial transmission lines to balanced antennas; dipoles, quads and yagis. Produces proper current distribution resulting in reduced feedline radiation for maximum power transfer, gain and reduced TVI/BCI. DC grounded for lighting protection, center eye hook for support. Usable from 1.8-40MHz, 2KW PEP, So-239 connector..

W2AU 1:1 1.1, 1.8-40MHz ferrite **$24.99**
W2AU 4:1 1.1, 1.8-40MHz ferrite **24.99**
W2AU BEAM 1.1, Beam balun **24.99**

W2DU NON-TRANSFORMER CHOKE BALUNS

High efficiency, *transformerless* 1:1 baluns. The HF model is the only one available that works on 160 meters! They all handle a VSWR up to 5:1 at the legal power limit, allowing use with antenna tuners. The VHF model eliminates the usual rod and tube hardware balun assembly normally used at those frequencies.

W2DU-HF 1:1, 1.8-30MHz choke **$26.99**
W2DU-VHF 1:1, 30-250MHz choke **26.99**
W2DU BEAM 1:1, 40-10m choke **26.99**

Van Gorden Engineering

BALUNS & INSULATORS

Hi-Q 1:1 or **Hi-Q 4:1** Baluns For dipoles, yagis, inverted vees and doublets. Provides 1:1 or 4:1 impedance ratio for matching unbalanced coaxial cable to balanced antennas. Covers 3–40MHz with a 1.5KW rating. Reduces feedline radiation for more power into antenna, and reduced TVI/BCI problems. Built-in DC ground reduces static noise and provides some lightning protecton. Convenient SO-239 connector and center support eye hook.Weatherproof ea. **$14.99**

ANTENNA CENTE Hi-Q Antenna Center Insulator Insulator only, no balun. Replaces egg-type center insulator. Small, rugged, lightweight, weatherproof, SO-239 connector, center supporting eye hook **$6.99**

ANTENNA END IN End insulators . pair **$4.99**
DOG BONE Antenna insulators ..... each **99¢**

LADDER LINE

450 OHM 100 18 ga. 100' insulated **$14.99**
450 OHM 14 100 14 ga. 100' insulated.. **29.99**
450 OHM 1000 18 ga. 1000' insulated . **109.99**
450 OHM 14 1000 14 ga. 1000' insul.. **229.99**

WHITE NYLON ROPE

NR-100 100' roll, antenna guy rope **$4.99**
NR-1000 1000' roll, antenna guy rope **44.99**

N CONNECTOR

N CONNECTOR Male connector for Belden 9913 and 8214 coax **$4.99**

PREASSEMBLED COAXIAL HOOK-UPS

8X-1.5ST 1.5' RG-8X, silver-tef. PL-259s .. **$7.99**
8X-3ST 3' RG-8X w/silver-teflon PL-259s **8.99**
8X-6ST 6' RG-8X w/silver-teflon PL-259s . **10.99**
8X-12ST 12' RG-8X, silver-teflon PL-259s **11.99**
8X-25ST 25' RG-8X, silver-teflon PL-259s **15.99**
8X-50ST 50' RG-8X, silver-teflon PL-259s **24.99**
8X-75ST 75' RG-8X, silver-teflon PL-259s **31.99**
8X-100ST 100' RG-8X, silver-tef. PL-259s **37.99**
213-25ST 25' RG-213, silver-tef. PL-259s . **25.99**
213-50ST 50' RG-213, silver-tef. PL-259s . **38.99**
213-75ST 75' RG-213, silver-tef. PL-259s . **54.99**
213-100ST 100' RG-213, sil.-tef. PL-259 .. **72.99**

Used & Demo Equipment lists
Updated regularly on the web.
Check them out and order **On-line**

VECTRONICS

ANTENNA TUNERS

VC-300M Mobile Tuner Compact and lightweight for base or mobile use. Tunes verticals, dipoles, inverted Vs, beams and mobile whips fed by coaxial cable. Covers 1.8–30MHz at 300W continuous power. The dual-movement cross-needle meter simultaneously monitors RF power output and SWR. 7.25"w x 3.5"h x 8.75"d, 2.5 lbs **$99.99**

VC-300DLP Antenna Tuner A quality, economical tuner. Covers 1.8–30MHz at 300W continuous power capability from 3.5–30MHz and 150W on 1.8 MHz. Built-in dummy load, dual-movement cross-needle peak or average reading meter. Compatible with most antennas – coax-fed, balanced or single wire. Built-in 4:1 balun and 6-position antenna switch. 10.25"w x 9.5"d x 3.5"h, 3.5 lbs.. **$149.99**

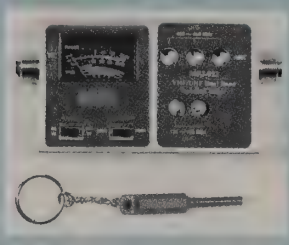
VC-300D Antenna Tuner Same functions and specifications as the VC-300DLP above, but has the additional capability to show a peak power indication by using an instantaneous responding digital bargraph meter display. A level and delay control has been added to calibrate the display to the meter, and to vary the delay response..... **$179.99**

HFT-1500 Antenna Tuner Rated for 1500W from 1.8–30MHz; 1000W (2KW PEP) on 160 and 10M. Features a cranked continuous roller inductor with a numerical turns counter and vernier tuning on the antenna and input capacitors. The dual-movement cross-needle meter shows average forward and reverse power and SWR while a 21-segment bargraph indicates the peak power. A true RF directional coupler sensor is used for the wattmeter circuitry. Includes a built-in 4:1 balun for balanced antenna systems and six-position antenna selector switch. 5.5"h x 12.5"w x 12"d, 10 lbs..... **$399.99**

We accept I.M.P.A.C.® Government Credit Cards

MFJ

MFJ ENTERPRISES, INC.



ANTENNA TUNERS

922 VHF/UHF Dual Band Antenna Tuner Great for HTs, mobiles or amps up to 150W. Using the included tool, adjust your antenna system for a low SWR on VHF, 136–175MHz and UHF, 420–460MHz. Meter reads both SWR and power in 60/150W ranges. 4" x 2" x 1.25"-carry it in your car, while camping, etc..... **$79.99**

945E Mobile Tuner Covers 1.8–30MHz plus 6M, and rated at 300W PEP. Matches coaxial cable only. Extends mobile antenna bandwidth and eliminates having to stop and adjust the whip length when making frequency changes. Lighted cross-needle SWR bridge and power meter with 50/300 and 5/30W ranges. 8"w x 2"h x 6"d **$99.99**

941E Versa Tuner II Covers 1.8–30MHz and rated at 300W PEP. *Matches everything!* – coaxial fed dipoles, vees, whips, verticals, beams, random wires and balanced lines, has a built-in 4:1 balun. Lighted cross-needle SWR/power meter with 300/50W and 30/5W ranges. Convenient 8-position antenna selector for 2 coax lines, random wire or balanced line or an external dummy load. 10.625"w x 2.875"h x 7"d **$109.99**

934 Antenna Tuner/Artificial Ground Makes a random wire an effective antenna. Combines the best features of MFJ's 941E and 931 into one unit. A full-featured 1.8–30MHz, 300W antenna tuner with cross-needle meter and ground matching knob that lets you switch in inductance to bring an attached radom length wire to a low impedance current point, forming an artificial ground. 10.625"w x 3.5"h x 7"d..... **$169.99**

948 All the features of the 941E without the dummy load. Has larger lighted peak reading cross-needle SWR/power meter..... **$119.99**

949E Deluxe Versa Tuner II Same power, tuning and switching capability as the 941E with a larger, lighted peak or average reading cross-needle SWR/wattmeter. *PreTune*™ allows off-air tune-up into a built-in 50Ω dummy load. 10.625"w x 2.875"h x 7"d. **$139.99**

969 Deluxe Versa Tuner II Covers 6–160M and rated at 300W. Features a roller inductor coil with a spinner knob and 3-digit turns counter. Lighted peak/average reading cross-needle SWR/wattmeter with 30/300W ranges. Tunes coaxial cable, random wire or balanced feedline, has a built-in 4:1 balun. QRM-Free *PreTune*™ allows off-air tune-up into a built-in 50Ω 300W dummy load. Convenient 8-position antenna selector switch. 10.5"w x 3.875"h x 9.5"d..... **$189.99**

962D Versa Tuner III Covers 1.8–30MHz and rated at 1.5KW PEP. Matches coaxial fed antennas, random or balanced line. Has a built-in 4:1 balun. Lighted peak/average cross-needle SWR/wattmeter with 200/2000W ranges. 6-position selector for 2 coax lines (direct or thru), random and balanced lines. 10.5"w x 3.875"h x 15"d.....**$249.99**

986 Differential-T Tuner™ Covers 1.8–30MHz , rated at 3KW PEP. Uses a broadband T-network with roller inductor and differential capacitor. Tunes most antennas using only two knobs. Lighted peak or average reading cross-needle SWR/wattmeter with 200/50W and 2000/500W ranges. Inductor spinner knob, 3-digit turns counter, 6-position antenna selector, external dummy load switch, 4:1 balun. 10.75"w x 4.5"h x 15"d..... **$299.99**

989C Versa Tuner V Covers 1.8–30MHz and rated at 3KW PEP. Super duty components. Matches nearly every type of antenna. Roller inductor with spinner knob and 3-digit turns counter. Lighted peak/average reading cross-needle SWR/wattmeter with 200/2000W ranges. Built-in 50Ω 300W dummy load, 3KW 4:1 balun and 6-position antenna selector switch. 10.75"w x 4.5"h x 15"d..... **$319.99**

Palomar Engineers

PT-340 Tuner-Tuner Eliminate QRM, overheated final tubes and devices by adjusting the station antenna tuner without transmitting. Installs permanently between rig and antenna tuner. Just turn it on, and listen to the noise output in your receiver, then adjust your station tuner controls for a dip in the noise (a null). Covers 1.7–30MHz. Uses 9V battery. 6"w x 5"h x 3"d..... **$99.99**

WA1FFL

Ladder-Loc® Center Insulator & Support Provides a convenient means of attaching 450Ω ladderline to various dipole antennas. This sturdy support minimizes feedline flexing at the antenna feedpoint and ensures a long lasting, trouble-free installation. A top attachment point is provided for attaching a center support rope. UV stabilized for long life..... **$12.99**

Z-11 QRP Auto Antenna Tuner Perfect for QRP units. Designed with regard to reducing size and power consumption. A high-efficiency, microprocessor-controlled, switched "L" network designed to work with dipoles, verticals, vees, beams or other coax-fed antennas. • 1.8–30MHz coverage • 0.1 to 30W continuous • Tunes 6 to 800Ω loads • Tuning time: 0.1–3 seconds (1.5 average) • Requires 11-15 VDC @ 10–190mA (75mA average) • 5" x 6.5" x 1.3", 15 oz **$169.99**

RT-11 Remote Mounting Automatic Tuner Easy to install in mobile, marine or tower applications. The tuner is housed in a water-resistant, high impact, ABS plastic enclosure. Latching relays retain the "L"-network settings even if power is removed. Optional remote head allows easy control from any location. Built-in interface for Alinco and Icom (cable required). For dipoles, verticals, beams or any other coax-fed antenna. Optional 4:1 balun for long wires and ladder line fed systems. • 1.8–54MHz coverage • 0.1 to 125W • Tunes 6 to 800Ω loads • Tuning time 0.1 to 3 seconds (1.5 average) • Requires 11-15V DC @ 10-200mA (75mA average) • 8.5"w x 5.5"h x 3"d, 2.5 lbs **$199.99**

AT-11MP Automatic Antenna Tuner Microprocessor control merged with a proven switched "L"-network design. Automatically analyzes SWR and quickly adjusts discrete components to achieve, in most cases, an SWR of 1.5:1 or less. For dipoles, verticals, vees, beams and other coax-fed antennas. Optional external 4:1 balun for tuning of random length, long wire, and other systems. Dual cross-needle meter simultaneously shows forward/reflected power and SWR. Built-in interface for use with Alinco and Icom (cable required). • 1.8–30MHz coverage • Power range: 5 to 150W • Tunes 6 to 800Ω loads • Tuning time: 0.1–5 seconds (3.0 average) • Requires 11-15 VDC @ 15–500 mA (250mA average) • 9.5" x 8.25" x 2.5" **$219.99**

DC SALES

TENNA HITCH A heat treated, high strength aluminum bracket with insulated 3/8" x 24 mounting stud. Installs under the ball of any Class-I or II hitch. Handles the largest mobile antennas, and does not interfere with trailer towing capability. No holes to drill. All hardware is supplied **$38.99**

AMERITRON

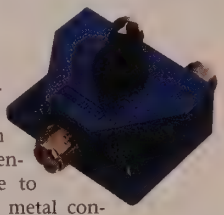
ATR-30 True Legal Limit™ Antenna Tuner Covers 1.8–30MHz, including all MARS and WARC bands. Designed for sustained RF output of over 1500W CW and 3000W SSB, also 160m. Uses High-Q, high-current, edge-wound arc-free roller inductor with super heavy-duty 500pf capacitor in T-match network. Matches nearly any type of antenna using either coax or balanced feedlines. Cross-needle, peak-reading SWR/wattmeter with 3000/300W ranges measures peak or average forward/reflected power plus VSWR, illum. Includes 3-core choke balun, 6-position antenna switch and 6:1 vernier reduction drives, turns counter. Optional external 12 VDC or internal 9V required **$549.99**

ICOM

AH-2B Antenna Element Provides 7 through 50MHz mobile operation when used with the AH-4 antenna tuner. Includes hardware for mounting to a tow bar, 8.2 ft. antenna. **$299.99**

AH-4 Automatic Antenna Tuner *Fully automatic* – covers all amateur bands from 3.5MHz–54MHz with a 23' or longer wire antenna, or 7–54MHz with optional AH-2B antenna element. Compact yet durable, it measures 6.7"w x 2.7"h x 9"d for easy installation in a variety of locations. Weather-resistant construction, using rubber gasket seals, enables operation in all conditions. Handles 120W PEP, requires only 5–15W for tuning. Designed for use with Icom HF transceivers. Just push the [TUNER] switch and the AH-4 auto adjusts to the minimum SWR in less than 2.5 seconds. Up to 45 memories store settings to provide 1-second retuning. Supplied with mounting kit, 16' control and coaxial cables, PL-259s. Requires 13.8 VDC..... **$269.99**

DAIWA industry co. ltd.



CS-201 2-Position Coaxial Switch A high quality coaxial switch with excellent high frequency RF characteristics due to cavity and heavy diecast metal construction. Frequency range up to 600MHz with less than 0.12 VSWR, less than 0.2dB insertion loss and 60dB isolation between terminals. Rated at 2.5 KW PEP or 1KW CW. Auto grounding of unused terminals, SO-239 connectors **$26.99**

We accept I.M.P.A.C.® Government Credit Cards

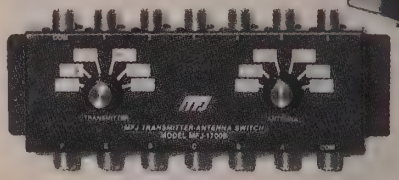
MFJ ENTERPRISES, INC.

ANTENNA MOUNTS

310 HT Antenna Window Mount Clip Your HT rubber duck antenna radiates poorly inside your car due to the shielding effect of the roof, doors, etc. Detach the duck from your HT and install on this handy BNC window mount clip. It holds your antenna securely on the outside of your car's window where it can radiate freely. Quick and easy to install and remove. Comes with 10' of flexible mini-coaxial cable **$14.99**

340 Mirror or Luggage Mount For mounting VHF/UHF and medium-size HF antennas on mirror, luggage rack or spare tire carrier of truck, van, RV or SUV **$34.99**

345 Trunk/Hatchback Lip Mount Mounts on any lip on you vehicle. An extra-wide 4-inch lip and large reinforcing tabs on each side safely distributes the load. Mounts at any angle and allows at any desired angle **$34.99**



COAXIAL SWITCHES

1700B Antenna and Transceiver Switch Select up to 6 antennas and 6 rigs in any combination. Leave in line to operate with any combination 50 or 75Ω. Handles 2kW PEP or 1kW CW from 1.8–30 MHz. Unused positions are auto grounded for lightning protection. 10"w x 3"h x 1.5"d **$79.99**

1701 Antenna Switch Six positions, for 50-75Ω systems. Rated for 2KW PEP or 1KW CW from 1.8–30MHz. Unused positions are grounded for lightning protection. 10"w x 3"h x 1.5"d... **$49.99**

1702C Antenna Switch 2 positions + center ground. 50Ω, rated to 500MHz with <0.2dB loss, 2.5kW PEP or 1kW CW. >60dB isolation @ 300MHz or >50dB @ 450MHz. Unused terminal auto grounds for lightning protection..... **$24.99**

1702CN Lowest loss on UHF. Uses Type N connectors which are good up to 1.1GHz **$34.99**

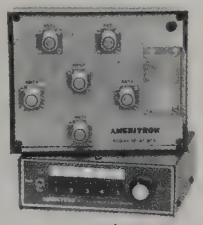
1704 Antenna Switch 4 positions + center ground. 50Ω, rated to 500MHz with <0.2dB loss, 2.5kW PEP, 1kW CW, >50 dB isolation @ 500MHz. Includes replaceable lightning protection..... **$64.99**

1704N with Type N's..... **$74.99**

AMERITRON

REMOTE CONTROLLED ANTENNA SWITCHES

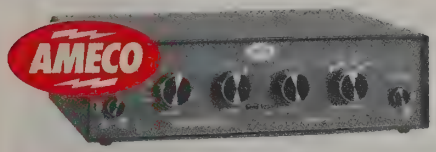
RCS-4 Select up to 4 different HF antennas by supplying control voltages thru the coax without the need for a separate control line. The weatherproof switch box can be tower, mast or wall mounted. Uses three heavy duty 10A contact relays on a fiberglass circuit board 5.25"d x 7"w x 3"h. Safe, 14 VDC control. The indoor control console locates at the operating position. 6"d x 6"w x 2.5"h. 120VAC. Rated 1.8–30MHz, 2KW **$129.99**



RCS-8V Independently or simultaneously select up to 5 different antennas using one coaxial feedline and 8-wire control cable. Internal wiring allows grounding or floating unused terminals as required. Rated at 5KW below 30MHz, and 1KW up to 150MHz **$139.99**

RCS-8VN Same as RCS-8V but with N-type female connectors **$149.99**

RCS-10 Select up to eight HF antennas using one feed line and a single four conductor control line (not supplied). Long life sealed relays with 16A current rating. Up to 100MHz with low VSWR. Over 5KW below 30MHz (matched) **$149.99**



PT-3 Preamplifier Covers 2-54MHz and useable with either a receiver or transceiver. A tunable low noise dual-gate FET circuit provides >20dB gain, low N.F. and improved spurious and image rejection. An RF sensed switch with variable delay automatically bypasses to antenna on transmit. Second receiver or antenna capability. 12V DC, or use P-12T AC adapter ($9.99). 2.5"h x 8.75"w x 6.5"d... **$124.99**

TPA Tunable Preamp/Active Antenna Use as a preamplifier to improve receiver gain, or as an indoor active antenna. Covers 0.22 –30MHz in 5 bands. A dual-gate FET device provides an excellent N.F. and >20 dB gain. As a preamplifier, the input matches most antennas; long wire, 300Ω and random lengths. When no external antenna is available, the preamplifier's built-in 30 in. collapsible whip gives great results. Uses 9V battery or P-9T AC adapter ($9.99). 1.5"h x 8"w x 6.5"d..... **$76.99**

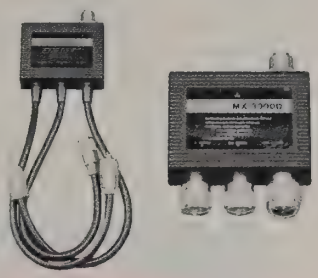
We accept I.M.P.A.C.® Government Credit Cards

DUPLEXERS

Type	SO239 PL259/PL259	SO239 PL259/Nmale	SO239 SO239/SO239	SO239 PL259/PL259	SO239 PL259/Nmale	Nfemale PL259/Nmale	PL259 SO239/SO239
Leads	No	No	No	Yes	Yes	No	Yes
2m/440	Comet CF4160K Diamond MX72D MFJ 916	Comet CF4160I	Comet CF4160J Valor D270	Comet CF416A Comet CF530 Diamond MX72H	Comet CF416B Diamond MX72N Yaesu AD3	Comet CF416C Comet CF416W	
2m/220	Diamond MX214D			Comet CF142			
HF/6 to 440				Comet CF360A			Comet CF360B
HF to 6/2m				Comet CF706A Diamond MX62M			

TRIPLEXERS

Type	Leads	HF/6/2/440/1200	HF/6/2/440	2/220/440
Nfemale PL259/PL259/Nmale	No	Comet CFX4310C		
SO239 PL259/PL259/PL259	Yes	Diamond MX2000	Comet CFX514	Comet CFX324A Diamond MX324
SO239 PL259/PL259/PL259	No		Comet CFX5140	Comet CFX324B Diamond MX324D
Nfemale PL259/PL259/Nmale	Yes	Diamond MX3000		
SO239 PL259/PL259/Nmale	Yes		Comet CFX514N	
SO239 SO239/SO239/SO239	No		Comet CFX514J	



For duplexer/triplexer prices, see the Price Guide under each respective manufacturer.

COAX-SEAL®

"The Original Connector Sealant!"

UNV 104 Hand Moldable Plastic for Antenna Component Protection The quick and effective way to seal and protect all types of coaxial fittings, baluns, antenna parts and connectors. Simply wrap it on like regular tape, then mold it to any shape. It adheres tightly to metal, vinyl and polyvinyl coax outer jackets. Stays flexible and sealed at any temperature for years to resist moisture penetration and deterioration. Its permanent flexibility makes it possible to remove and re-install fittings, then reseal just by reforming the same material. Non toxic and non-contaminating roll, 1/2"w x 60"... **$3.99**

Cross Devices

STUF Dielectric Water-proof Connector Filler Seals out moisture. High purity macroscopic foam that dielectrically simulates the coaxial cable core. Fill coax connectors and tighten. The filler material hydraulically channels into all connector voids and points of moisture entry. Non-hardening, easy to remove. No silicones, or other additives to harm coax cable material ..... (tube) **$4.99**

Look For This

NEW

& Check Out AES' Latest Additions.

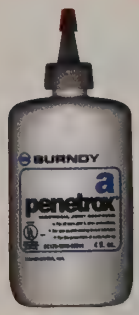
MFJ ENTERPRISES, INC.

LIGHTNING PROTECTION

931 Artificial Ground Unit Eliminates problems caused by inadequate grounding when using random length wire antennas. It resonates an additional length of wire to act as a tuned counterpoise. It results in easier tuning, improved efficiency, a better radiation pattern and reduced TVI/RFI. Covers 1.8 to 30MHz, RF ammeter tuning indicator. 7.5"w x 3.5"h x 7"d. *Not for coax fed antennas* **$89.99**

270 Lightning Surge Protector Safeguard ham gear from damage due to static charges & lightning induced surges. Replaceable ultra-fast gas discharge tube safely shunts up to 5000 amps of peak impulse current to an independent ground. Rated to 400W PEP, usable up to 1000MHz..... **$29.99**

PENETROX™

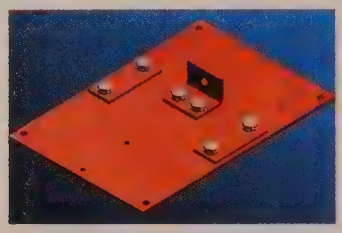


PENETROX® A Recommended for use on aluminum-to-aluminum and aluminum-to-copper connectors, on bare conductors, and bus bars. Good for all voltages. Assures a high conductivity joint by sealing out air and moisture to prevent corrosion and reformation of oxide film. Apply to mating pieces of antenna components, tubing, etc. during assembly to provide a non-corrosive, low resistance and air tight seal. Makes later disassembly a breeze..... (4oz bottle) **$12.99**

GROUNDING ACCESSORIES

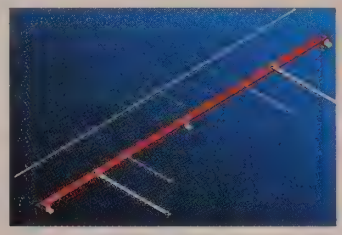
GBIS18114AE 1/8" Copper Entrance Ground Bar Kit Installs at shack entrance, making a short connection to the ground system. Holds up to five PolyPhaser IS-50-type lightning protectors. Insulated stand-off brackets allow attaching and insulating of ground bar from mounting surface. Two HD terminal lugs and hardware included. Attach grounding wires from 1/0 stranded to #6 solid..... **$27.99**

GEL3AE Pkg. of 5 HD terminal lugs **$15.99**



GP1868.78AE 1/8 in. Copper Single Point Ground Panel Kit Provides single-point grounding for two transceiver lines and rotor control cable. Installs at tower base or on outside wall. Sized to fit inside a NEMA-4X style box for weather proofing. Tapped holes and hardware provided for mounting a PolyPhaser IC-RCT rotor control protector and up to two IS-50 series coaxial protectors. Sandwich plates and hardware included **$54.99**

GBX976AE NEMA 4X Waterproof Enclosure Accepts GP1868.78AE ground panel **$89.99**



GBIS18148AE 1/8" Copper Station Ground Bar Kit Installs at back of operating desk. Grounds individual components to a common point preventing multiple ground paths and daisy-chains. Accepts a heavy ground conductor to be routed to station ground or entrance ground bar. Includes two heavy 12 in. straps for equipment and two light duty 1/4 in. straps for accessories, plus an extra 1/4" strap and lugs for added assemblies **$64.99**

Look For This NEW & Check Out AES' Latest Additions.

PolyPhaser® CORPORATION

The primary rule for protecting ham radio equipment against lightning damage is connection of all elements to a single, low impedance, ground system within the hamshack. This includes antenna, antenna support (pole, tower, etc.), and all station protectors (antenna, power, telephone, rotor, etc.).

BROADBAND COAXIAL PROTECTORS

Hermetically-sealed gas tubes and additional components assuring surge voltages and currents that are formed diffentially on coaxial cable are prevented from being shared by valuable equipment. DC blocked for maximum protection. • Low loss • Multi-strike capability with low strike throughput energy • Aluminum enclosure • Wide frequency range, low VSWR • Works on all equipment • Silver-center, TFE, UHF connectors • Silver shell and gold pin Type-N

Flange Mount *(left)*

IS-50UX-C0 1.5–400MHz • HF 2kW, VHF 375W, UHF 125W • UHF connector..... **$61.99**

IS-50UX-C1 50–700MHz • VHF 375W, UHF 125W • UHF connector..... **$61.99**

IS-50NX-C2 125–1000MHz • VHF 375W, UHF 125W/50W (low/high) • Type-N conn **$61.99**

Bulkhead Mount *(middle)*

IS-B50LU-C0 1.5–400MHz • HF 2kW, VHF 375W, UHF 125W • UHF connector..... **$64.99**

IS-B50LU-C1 50–700MHz • VHF 375W, UHF 125W • UHF connector..... **$64.99**

IS-B50LN-C2 125–1000MHz • VHF 375W, UHF 125W/50W (low/high) • Type-N conn **$64.99**

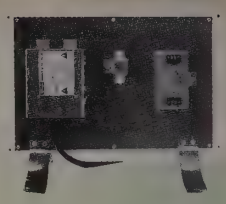
Isolated Port Bulkhead Mounts *(right)*

DC block for the center conductor and blocks the shield's surge energy from the equipment chassis.

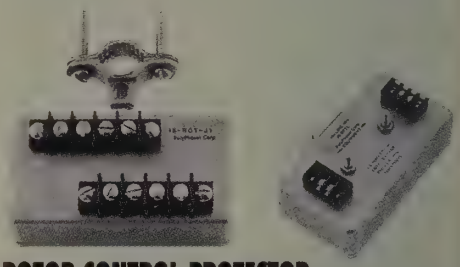
IS-IE50LN-C1 50–700MHz • VHF 375W, UHF 125W • Type-N connector..... **$117.99**

IS-IE50LU-C0 1.5–400MHz • HF 2kW, VHF 375W, UHF 125W • Type-N connector ... **$129.99**

GROUNDING PANEL



CU-SPGP A heavy 0.062" copper plate mounted on 1/2" plywood. For mounting protectors and establishing the important single grounding point for all station equipment. Comes with concrete anchors, mounting screws, two rolls of 10' x 1.5" copper grounding strap and 2 copper, 18"w x 12"h, sandwich bars, 16" on-center mount **$69.99**

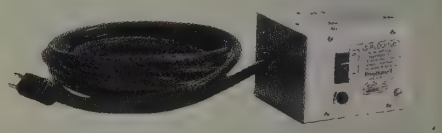


ROTOR CONTROL PROTECTOR

IS-RCT *(left)* 8-wire protection for rotor control box and other nearby equipment. Water tight with mounting stud **$54.99**

IN-LINE PHONE LINE PROTECTOR

IS-SPTL *(right)* Multi-stage protection for telephone trunk lines. Handles ring voltages up to 105V, surges up to 36kA **$57.99**



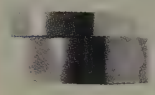
POWER LINE EXTENSION PROTECTOR

In-line, multi-stage protectors provide multi-strike line protection, filtering and proper grounding for a 120V AC line. 2 grounded outlets, power switch, and circuit breaker. All aluminum grounded enclosure, 4.75" wide.

IS-PLDO-120-15A 15', 120V/15A **$172.99**

IS-PLDO-120-20A 6' cord, 120V/20A. **$215.99**

LOW INDUCTANCE COPPER STRAP



A larger surface area and lower inductance gives strap a huge advantage over wire for RF grounding and lightning protection. Cannot be fused open by lightning. Usable above or in-ground, #26 AWG thickness. Available in 1.5" or 3" widths and 25', 50', 75' or 100' rolls. See Price Guide for details.

Gift Certificates For the Undecided

AMATEUR ELECTRONIC SUPPLY
5710 W. GOOD HOPE ROAD.
MILWAUKEE, WISCONSIN 53223
(414) 358-0333

NO. 0000

DATE _____ 19___

THIS CERTIFICATE ENTITLES _____

TO MERCHANDISE VALUED AT _____ DOLLARS $_____

PRESENTED BY _____

_____ AUTHORIZED SIGNATURE

GLEN MARTIN ENGINEERING

Your Solution to Support!
Martin Towers & Accessories

Martin Aluminum Tower Packages

Convenient and affordable high-quality anodized aluminum tower packages, all of which include the popular Hazer Tram System. The tower's all-bolted construction eliminates freeze breaks. Easy "walk-up" installation.

Visit www.glenmartin.com, and plug in to Glen Martin's complete list of products and accessories.

FREE CATALOG

The Hazer Tram System

The Hazer eliminates tower climbing! Brings antennas and rotors down to ground level for safe and convenient maintenance and installation. Let the Hazer do the climbing for you!

Tower Climbing Equipment

When you have no other option than to climb your tower, make sure that you're safe! Climb with Glen Martin Fall Protection Equipment!

Roof-Top Towers

Five models to choose from.

GlenMartin.com

13620 Old Hwy 40 ■ Boonville ■ MO 65233
(660) 882-2734 ■ (800) 486-1223
Fax: (660) 882-7200 ■ www.glenmartin.com

GLEN MARTIN ENGINEERING

SP Certified

FULL BODY CLIMBING HARNESSES

Personal Fall Safety Systems The basic component of any personal fall protection system is a full body harness designed to permit the wearer freedom of movement as well as providing sufficient strength to arrest the most severe fall safely. Technology now allows us to design and manufacture a full body harness that is extremely strong, yet so lightweight, comfortable, and easy to adjust that the wearer is barely aware of the unit. Glen Martin Engineering offers a complete line of full body harnesses, which continue to include the latest innovations. Sizes: (Measurements include clothing, and are measured at the naval) XS 28"-36", S 32"-40", M 36"-44", L 40"-48", XL 44"-52"

SkyClimber™ *(left)* full body harnesses are designed with a chest-high front D-ring for fixed climbing. The harness is made of polyester, and is uniquely designed for easy on and off assembly. The harness offers complete fall arrest, fall prevention, and tower climbing safety. Two D-ring harnesses offer a sliding D-ring at the center of back, and chest-high front D-ring. The four D-ring harnesses are built with a sliding D-ring at center of back, chest-high front D-ring, and D-ring on each hip.

FP-5600 Two D-ring, 2.7 lbs., S-M **$81.99**
FP-5601 Two D-ring, 2.8 lbs., L-XL **81.99**
FP-5602 Four D-ring, 3.0 lbs., S-M **99.99**
FP-5603 Four D-ring, 3.2 lbs., L-XL..... **99.99**

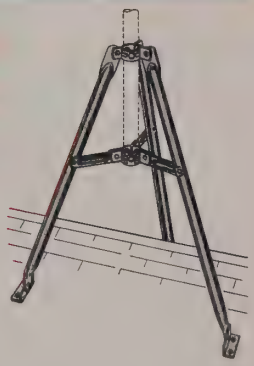
StarClimber™ *(right)* six D-ring premium tower saddle harnesses are designed for maximum comfort, safety and worker productivity. Each features padded seat strap, padded shoulder straps, and removable tool belt. Enjoy the security and peace-of-mind that quality fall protection can provide. Each also offers sliding D-ring at center of back, chest-high front D-ring, D-ring on each hip, D-ring on each end of seat strap, black 1.75" nylon tongue buckle leg strap, red 1.75" polyester shoulder straps, two accessory rings attached to center-back of 5" padded backpad and seatstrap, and carry-all bag.

FP-6600 5.0 lbs., extra small..... **$272.99**
FP-6601 5.1 lbs., small..... **260.99**
FP-6602 5.2 lbs., medium..... **260.99**
FP-6603 5.3 lbs., large **260.99**
FP-6604 5.4 lbs., extra large **272.99**

See Price Guide for a full line of lanyards. All Glen Martin products are Drop Shipped.

EASY-UP ANTENNA TRIPODS

UPS SHIPPABLE



The use of a self-supporting antenna mount makes a neat and attractive installation without guy wires. EZ-Ups are Heavy-Duty and Self-supporting – made out of 1-1/4 in. tubular steel with triple corrsion protection inside and out. Double embossed collars with six locking screws hold masts up to 1-3/4 in. Fast, one-person installation, the legs extend to any rafter spacing. Shipped completely assembled and includes a pitch pad kit and lag screws.

EZ 48-3ABX *(right)* 3 ft. high, 8.5 lbs..... **$24.99**
EZ 48-5ABX *(right)* 5 ft. high, 12 lbs..... **$34.99**
EZ 5-16 5' 16 ga. steel mast (Pick-up only) **$7.99**
EZ 29-24S **Heavy-duty Double-strap Chimney Mount** *(left)* Mount includes two "Y" type mounts and 24' of stainless steel strap **$17.99**

MasterCard VISA DISCOVER NOVUS American Express Cards

• 1-800-321-3594 OH • 1-800-327-1917 FL • 1-800-634-6227 NV
Email Your Questions to info@aesham.com

UNIVERSAL TOWERS

ALUMINUM, FREESTANDING, SELF-SUPPORTING AT RATED LOAD

Universal offers 10-foot easy-to-assemble sections or complete towers ranging from 30 to 100 feet with a choice of wind load ratings and accessories. The lightweight, rust-free, strong, aluminum sections are equilateral, triangular, welded trusses available in 11, 14, 18, 22, 26 or 30-inch widths. To choose the proper tower: a) Determine the projected surface area of the mountable antenna. This figure is often found in the accompanying antenna literature. If not, use the following standards: standard TV antennas = 2 sq. ft. in area; 6/10 meter beams and large TV antennas = 5 sq. ft.; 20/40 meter beams = 9 sq. ft.; large 20/40 meter beams or multiple antenna arrays = 18–26 sq. ft. [when using a rotator, add 1 sq. ft., plus 1 sq. ft. for the mast, to the antenna size] b) Decide on the desired tower height. [sectional towers provide the option to add height later] c) Choose a model based on height and windload. Model numbers are merely wind load followed by height. [eg. Model 5-50 = 5 sq. ft. wind load + 50' desired height]

Full line of accessories in Price Guide, including: Tower Motor Drives 5 ft. to 20 ft. Antenna Masts • 20 ft. Chromolly Masts • Thrust Bearings • Mast Raising Fixtures • Rotating bases • Coax support arms • Limit Switch Packages

MA SERIES CRANK-UP TUBULAR TOWERS

handle 10 sq. ft. antennas at 50mph winds

Model	Height max.	Height min.	Sections	Weight (in lbs.)	Section OD top/bottom	Base	Price
MA-40	40'	21'6"	2	242	3"sq./4.5"	12"x12"x12"	$899.99
MA-550	55'	22'1"	3	435	3"sq./6"	18"x18"x18"	$1499.99
MA550MDP*	55'	22'1"	3	620	3"sq./6"	3'x3'x5'	$2932.99
MA-770	70'	22'10"	4	645	3"sq./8"	3'x3'x6'	$2529.99
MA770MDP*	70'	22'10"	4	880	3"sq./8"	3'x3'x5.5'	$3999.99
MA-850	85'	23'6"	5	943	3"sq./10"	4'x4'x6'	$3909.99
MA-850MDP*	85'	23'6"	5	1128	3"sq./10"	4'x4'x6'	$5391.99

*Complete with heavy-duty motor drive with positive pull down. **Standard bases and eave mounts included (except MA-770, 770MDP and 850MDP).

FREE STANDING CRANK-UP TOWERS

handle 18 sq. ft. antennas at 50mph winds

Model	Height max.	Height min.	Sections	Weight (in lbs.)	Section OD top/bottom	Base	Price
TX-438	38'	21'6"	2	355	12.5"/15"	3'x3'x5'	$1142.99
TX-445	55'	21'6"	3	670	12.5"/18"	3'x3'x6'	$1699.99
TX-472	72'	22'8"	4	1040	12.5"/21.625"	4'x4'x7'	$2832.99
TX-472MDP*	72'	22'8"	4	1210	12.5"/21.625"	4'x4'x7'	$4549.99
TX-489MDPL**	89'	23'4"	5	1800	12.5"/25.625"	4'x4'x8.167'	$7390.99

*Includes heavy-duty motor drive with positive pull down.
**Comes with heavy-duty motor drive with dual level wind and positive pull down. Also includes fully operational limit switch package.

FREE STANDING HEAVY-DUTY CRANK-UP TOWERS

handle 30 sq. ft. antennas at 50mph winds**

Model	Height max.	Height min.	Sections	Weight (in lbs.)	Section OD top/bottom	Base	Price
HDX-538	38'	21'6"	2	600	15"/18"	3'x3'x6'	$1477.99
HDX-555	55'	22'	3	870	15"/21.625"	4'x4'x6'	$2569.99
HDX-572MDPL*	72'	22'8"	4	1600	15"/25.625"	4'x4'x8.167'	$6775.99
HDX-589MDPL*	89'	23'8"	5	2440	15"/30.625"	5'x5'x8.5'	$8869.99
HDX-689MDPL*	89'	23'8"	5	3450	18"/37.125"	5'x5'x9.5'	$17135.99
HDX-5106MDPL*	106'	24'8"	6	3700	15"/37.125"	5'x5'x9.5'	$18647.99

*Includes heavy-duty motor drive with dual level wind and positive pull down and fully operational limit switch package.
**HDX-689MDPL rated 60 sq. ft. and HDX-5106MDPL rated 35 sq. ft.

FREE STANDING "LOW-PROFILE" COMPACT CRANK-UP TOWERS

SS models handle 10 sq. ft. antennas, HD handles 24 sq. ft., at 50mph winds

Model	Height max.	Height min.	Sections	Weight (in lbs.)	Section OD top/bottom	Base	Price
TMM-433SS*	33'	11'4"	4	315	10"/18"	3'x3'x4'	$1219.99
TMM-433HD	33'	11'4"	4	400	12.5"/20.875"	3'x3'x5'	$1477.99
TMM-541SS	41'	12'	5	430	10"/20.875"	3'x3'x4.5'	$1599.99

*Includes heavy-duty motor drive with dual level wind and positive pull down and fully operational limit switch package.
**HDX-689MDPL rated 60 sq. ft. and HDX-5106MDPL rated 35 sq. ft.

tilt-over base

* All towers are drop shipped direct from the factory. Shipment is FOB Visalia, CA via truck. Additional freight charges will apply. Ask for details.
** Any tower purchased with a MDP-750 or MDPL-1000 motor drive MUST be purchased with either the MCL-100 or the RMC-1000.
*** Full US Tower catalog available free, ask dealer for details.

hy-gain® ROTATORS

. . . the first choice of hams around the world!

The HAM-IV

is the most popular rotator in the world! It is designed for medium communications arrays of up to 15 sq. ft. wind load area. Low temperature grease permits normal operation down to -30° F. New alloy ring gear gives extra strength up to 100,000 PSI for maximum reliability. The indicator potentiometer leads have ferrite beads to reduce RF susceptibility. For convenience a Cinch® plug connector is used at the rotor plus an 8-pin plug at the control box. Dual 98 ball bearing race for load bearing strength and electric locking steel wedge brake prevents wind induced antenna movement. North or South center meter scale. Maximum mast size: 2.063 in..... **$529.99**

Ham-IV Specifications

Wind Load cap.(inside tower)	15 square feet
Wind Load (w/mast adapter)	**7.5 square feet**
Turning Power (in lbs.)	800
Brake Power (in lbs.)	**5000**
Brake Construction	Electric Wedge
Ball Bearing Assembly	**Dual race/96 bearings**
Mounting Hardware	Clamp plate/steel U-bolts
Control Cable Conductors	**8** (Belden 8448 or 9405)
Shipping Weight (lbs.)	24
Effective Moment (in tower)	**2800 ft/lbs.**

The TAILTWISTER SERIES II

is designed for medium communications antenna arrays of up to 20 sq. ft. wind load area. Available with DCU-1 Pathfinder Digital control box (T-2XD) or standard Analog control box (T-2X). Low temperature grease, alloy ring gear, indicator potentiometer, ferrite beads on potentiometer wires, weatherproof AMP connectors plus 8-pin plug at the control box. Triple bearing race with 138 ball bearings for large load bearing strength, electric locking steel wedge brake, North or South center meter scale, low voltage control. Maximum mast size: 2.063 in. **T-2X** with analog control..... **$619.99**

T-2XD with DCU-1 control **$979.99**

TAILTWISTER Specifications

Wind Load cap.(inside tower)	20 square feet
Wind Load (w/ mast adapter)	**10 square feet**
Turning Power (in lbs.)	1000
Brake Power (in lbs.)	**9000**
Brake Construction	Electric Wedge
Ball Bearing Assembly	**Triple race/138 bearings**
Mounting Hardware	Clamp plate/steel U-bolts
Control Cable Conductors	**8** (Belden 8448 or 9405)
Shipping Weight (lbs.)	28
Effective Moment (in tower)	**3400 ft/lbs.**

THE HAM-V

Designed for medium communications antenna arrays of up to 15 sq. ft. wind load area. Includes the innovative DCU-1 Pathfinder control unit. A strong 100,000 p.s.i alloy ring gear and a new indicator potentiometer have been added for improved reliability. For convenience, a Cinch® connector is used at the rotor and an 8-pin plug at the control box. Ferrite beads reduce RFI. Powder coated finish. Max. mast size: 2.063 in..... **$899.99**

HAM-V Specifications

Wind Load cap.(inside tower)	15 square feet
Wind Load (w/mast adapter)	**7.5 square feet**
Turning Power (in lbs.)	800
Brake Power (in lbs.)	**5000**
Brake Construction	Electric Wedge
Ball Bearing Assembly	**Dual race/96 bearings**
Mounting Hardware	Clamp plate/steel U-bolts
Control Cable Conductors	**8** (Belden 8448 or 9405)
Shipping Weight (lbs.)	24
Effective Moment (in tower)	**2800 foot/lbs.**

The HDR-300A

is the best for king-sized antenna arrays up to 25 sq. ft. wind load. Machined steel output gear. Tough, hardened stainless steel output shaft with a long keyway for added reliability. North or South centered calibration, Ferrite beads are installed on the potentiometer wires to reduce RF susceptibility, Heavy-duty self-centering steel mast clamp and hardware. Digital heading display accurate to 1°. Mast size: 1.25"-3" .. **$1229.99**

HDR-300A Specifications

Wind Load capacity	25 square feet
Wind Load (w/mast adapter)	**N/A**
Turning Power (inch lbs.)	5000
Brake Power (inch lbs.)	**7500**
Brake Construction	Solenoid operated locking
Bearing Assembly	**Bronze sleeve w/rollers**
Mounting Hardware	Stainless steel bolts
Control Cable Conductors	**7** (Belden 8448 or 9405)
Shipping Weight (lbs.)	55
Effective Moment (in tower)	**5000 ft/lbs.**

The AR-40

is for large FM-TV and compact communication antenna arrays up to 3.0 sq. ft. wind load area. The dual 12 ball bearing race is exclusive in its class. Automatic position sensor never needs resetting. Fully automatic control, just dial and touch for any desired location. Solid state, low voltage control. Safe and silent operation. Maximum mast size: 2.063 in. Includes light duty lower mast support.... **$269.99**

AR-40 Specifications

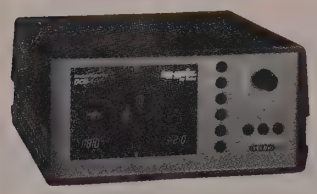
Wind Load cap.(inside tower)	3.0 square feet
Wind Load (w/mast adapter)	**1.5 square feet**
Turning Power (inch lbs.)	350
Brake Power (inch lbs.)	**450**
Brake Construction	Disc Brake
Ball Bearing Assembly	**Dual race/12 bearings**
Mounting Hardware	Plated clamps/steel bolts
Control Cable Conductors	**5** (Belden 8448 or 9405)
Shipping Weight (lbs.)	14
Effective Moment (in tower)	**300 ft/lbs.**

The CD-45-II

handles 8.5 sq. ft. mounted inside a tower, or 5 sq. ft. with mast adapter. Low temperature grease good to -30°F. Bell rotator design gives total weather protection, dual 58 ball bearing race gives proven support. Die-cast ring gear, stamped steel gear drive, heavy duty, trouble free gear train, North or South center scale, lighted directional indicator, 8-pin plug on control unit, snap-action control switches, low voltage control, safe operation, takes masts up to 2.063". Includes light duty lower mast support..... **$369.99**

CD-45-II Specifications

Wind Load cap.(inside tower)	8.5 square feet
Wind Load (w/mast adapter)	**5.0 square feet**
Turning Power (inch lbs.)	600
Brake Power (inch lbs.)	**800**
Brake Construction	Disc Brake
Ball Bearing Assembly	**Dual race/48 bearings**
Mounting Hardware	plated clamps/steel U-bolts
Control Cable Conductors	**8** (Belden 8448 or 9405)
Shipping Weight (lbs.)	22
Effective Moment (in tower)	**1200 ft/lbs.**



The DCU-1 PATHFINDER

Digital Rotator Control unit compatible with CD-45-II, T-2X, HAM-IV

Automatic operation of brake and rotor with digital readout out of your beam heading, accurate to 1°, and 360° choice for center of rotation. Automatic 8-second brake engagement delay reduces stopping torque stress. Six presets store favorite headings. RS-232 computer control, compatible with many logging and contest programs .. **$619.99**

Rotator Accessories

MSHD Heavy duty lower mast support for Ham-IV/V, T-2X/XD **$99.99**

MSLD Lower mat support for CD-45-II, AR-40 ..... **$39.99**

TSP-1 Tower spacer plate **$34.99**

We accept I.M.P.A.C.® Government Credit Cards

YAESU

ROTATORS

Precision designed for a wide variety of antenna installations • Strong, weatherproof, die-cast aluminum enclosures • Permanently lubricated for years of smooth, quiet operation • 450° Rotation • Selectable north or south center • Quiet, gear reduction braking • 117/220 VAC • Fits most USA-made tower shelves. Recommended Belden cables listed below.

G-2800DXA *(left)* The top-of-the line rotator for extra heavy-duty applications. 450° total rotation, with presets • 34 sq. ft. wind load • K-factor of 6870 ft. lbs. • 1808 ft lbs. of stationary torque • Rotation torque: 57.8-181 ft. lbs., rotation speed and torque vary with the speed control setting • Maximum vertical load of 661 lbs. • ±1/2° backlash • 1.875–2.5" mast size • 48-150 second 360° rotation • Optional GS-232A interface • Includes 131' (40m) of 6-wire cable • 8"dia. x 13.375"h • 13.2 lbs..... **$1039.99**

G-1000DXA *(right)* High-performance for medium and heavy-duty applications. Total rotational range 450°, with presets • 23 sq. ft. wind load • K-factor of 2020 ft. lbs. • 433 ft lbs. of stationary torque • Rotation torque: 43-79 ft. lbs., rotation speed and torque vary with speed setting • Max. vertical load: 440 lbs. • ±2° backlash • 1.5–2.5" mast • 35-74 sec. 360° rotation • Optional GS-232A interface • Requires 6-wire cable • 7.5"dia. x 12.5"h • 7.7 lbs **$469.99**

G-450A *(left)* For HF/VHF light to medium-duty applications, without presets • 10 sq. ft. wind load • K-factor of 722 ft. lbs. • 217 ft lbs. of stationary torque • Rotation torque: 43 ft. lbs. • Maximum vertical load of 220 lbs. • 1.5-2.5" mast size • 53 second 360° rotation • Requires 5-wire cable • 7.5"dia. x 12.5"h • 7 lbs **$239.99**

G-5500 *(right)* Azimuth-Elevation rotator combo for satellite earth station & other space communication antennas • 11 sq. ft. wind load • 578 ft. lbs. K-factor • 145 ft lbs. stationary torque • Rotation torque: 44 ft. lbs. • 440 lbs. max. vertical load • ±4% backlash • 1.5–2.5" mast • 58 sec. 360° rotation • 67 sec. 180° elevation • Opt. GS-232A interface/C-1000 cable • 1.25–1.625" boom dia. • Requires 2 x 6-wire cable • 12.5"dia. x 7.5"h, 20 lbs **$559.99**

G-550 Elevation rotator, for satellite earth station and other space communication antennas • 12 sq. ft. wind load • K-factor of 578 ft. lbs. • 101 ft lbs. of stationary torque • Rotation torque: 73 ft. lbs. • Maximum vertical load of 440 lbs. • ±3% backlash • 1.5–2.5" mast size • 67 second 180° elevation • 1.25–1.625" boom diameter • Requires 6-wire cable • 10.5"dia. x 7.5"h • 7.3 lbs ... **$279.99**

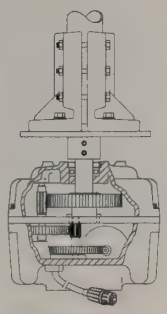
G-800DXA *(left)* High-performance for medium-duty applications. Total rotational range 450°, with presets • 17 sq. ft. wind load • K-factor of 1299 ft. lbs. • 288 ft lbs. of stationary torque • 43-79 ft. lbs. rotation torque, rotation speed/torque vary with the speed control setting • Max. vertical load of 440 lbs. • ±2° backlash • 1.5–2.5" mast • 35-74sec. 360° rotation • Optional GS-232A interface • Requires 5-wire cable • 7.5"dia. x 12.5"h • 7.5 lbs ... **$379.99**

G-800SA *(right)* High performance for medium-duty applications. Total rotational range 450°, no presets • 17 sq. ft. wind load • K-factor of 1299 ft. lbs. • 288 ft lbs. of stationary torque • 43-79 ft. lbs. rotation torque, rotation speed/torque vary with the speed control setting • Max. vertical load of 440 lbs. • ±2° backlash • 1.5-2.5" mast size • 44 second 360° rotation • Quick-disconnect plug • Requires 5-wire cable • 7.5"dia. x 12.5"h • 7.5 lbs ... **$289.99**

ACCESSORIES

GA-3000 Tower absorb. (G-1000/2800) **$119.99**
GC-038 Mast clamp **31.99**
GC-048 Mast clamp for G-2800 ..... **47.99**
GS-050 50mm thrust bearing (1.25"-2") **31.99**
GS-065 65mm thrust bearing (1.5"-2.5") ... **47.99**
GS-232A Interface for DXA rotators **539.99**
C-1000 GS-232A cable for SDX's/5500..... **29.99**
GS-680U Universal, self adjust. bearing **99.99**
SEP KIT Separation kit for G-5500..... **23.99**

M²



OR-2800PDC Heavy-duty Rotator Powerful and reliable, rotates multiple HF antennas or large VHF or UHF arrays with ease. The control box provides manual features plus heading preset, 10 programmable presets, programmable ramped start/stop, 1/2-degree target accuracy. Includes RS-232 port for computer control • Preci-sion worm-gear drive, not reversible by mast torque • Non-slip, ductile iron mast clamps • Large drive plate for masts up to 3" • Heat-treated steel gear train, hardened driveshaft • Prop-pitch style torque plate • Fits inside most popular towers and mates to standard towers and rotator plates • Motor-mounted digital pulse switch for accurate, closed loop control and heading display • 35 sq. ft. wind area • 1800 lbs. vertical load • 1.75–3.125 O.D. mast size • 55-270 second rotation speed • 0.1°/0.5° travel resolution • 110/ 220V AC, 50/60Hz input • 28-42V DC motor • Requires 4-wire rotor cable • 15.75"h total, 9.75"h rotor • 42 lbs..... **$1572.99**

Channel Master

9521A Drive Unit: Handles small to medium-sized VHF/UHF Ham antennas and TV antennas • One-piece cast aluminum housing • Heavy-duty rotator motor, three wire control • Precision-cut gear system • Built-in steel thrust bearing • Wind-tested brake pad • Durable powder-coated finish **Control Unit:** Direct access via channel number or compass heading • Compatible with most remote controls • Separate infrared remote controller • 69 channel programmable memory • Auto-synchronization for pinpoint accuracy • 3-wire **$99.99**

ECG®

U-105 Light-duty Antenna Rotator Long life, precision cut, hardened steel gears in a rugged, one-piece, cast aluminum housing. Large bearing surfaces and a strong, reinforced mast for lateral load support. Ball bearings are provided for vertical thrust load. This rotator's high torque easily handles the largest TV/FM and modest amateur VHF/UHF antenna arrays. Built to take high winds and harsh weather extremes with a water tight, lubricated seal. With completely automatic control, it accurately shows orientation of antenna and offers smooth, quiet operation. **Control Unit:** 120 VAC, 60 Hz, 68W • 18 VAC output voltage • 7"w x 5.875"d x 2.375"h **Rotator Drive Unit:** 360° rotation (mechanical stop) • 70 sec. rotation • Rotation torque of 8 ft.-lbs. • 100 lb. max. vertical load • 1.125" to 2" O.D. support mast • 10 lbs.. **$69.99**

TB-105 Support Bearing Use with the U-105 rotator to provide extra support and adding strength to an antenna installation. Ball bearing design also relieves stress from varying wind loads on the rotator drive and bearing..... **$18.99**

COMMUNICATIONS OUTFITTERS

EXP-1 **Expedition Pack** Designed for the Yaesu FT-817. Allows backpack style or table top operation with complete access to all controls, front and rear. Zippered pouch on both sides securely holds most any antenna in the collapsed position for travel. Radio compartment is divided so the top section will hold the FT-817, and the lower compartment can be used for an amplifier, tuner or other radios. Made of high quality, durable nylon with plastic panels for rigidity. Water-resistant. 12"w x 4"h x 15"d..... **$99.99**

UNI-SOLAR

SmartCharge flexible solar panels for advanced solar battery charging. Sized to charge and maintain 12V batteries. Flexible and durable design makes them very convenient to use.

USF-5 **5W Solar Panel** Ideally, provides up to 2A-hours a day and automatically compensates for battery self-discharge. For hams, boaters, RV owners and other battery users. Perfect for vehicles that stay idle for extended periods. • Lightweight • 10" x 20" • For lower use applications • 0.54 lbs..... **$99.99**

USF-32 **32W Solar Panel** Heavy duty, provides more than 12A-hours (ideally) a day. Meets demands for portable ham operations, lighting, radios, stereos, fish finders, etc. Use multiple units for more capacity. • 17" X 60" • 2.14 lbs. **$299.99**

AES

PCL-1 **Pro Communications Loud-Speaker** Ideal for amateur radios, scanners, shortwave, PCs, paging, or surround sound. • Uses European-built, 4" throw, 8Ω, 20W-rated contoured driver • Frequency response is 300Hz-5000Hz, ±3dB, optimized for max. speech intelligibility • Full magnetic shielding permits operation next to PCs, monitors or any other sensitive electronic equipment • Rugged, water resistant enclosure allows indoor or outdoor use • Powder-coated, perforated, metal grille protects speaker from damage or abuse • Comes complete with adjustable, metal mounting bracket for easy fixed or mobile use • Fitted with a standard 3.5mm "mini-plug" on a 5.5', strain relieved cord • 5"w x 4.3"h x 3.2"d, 1.7 lbs **$19.99**

POWERPORT™

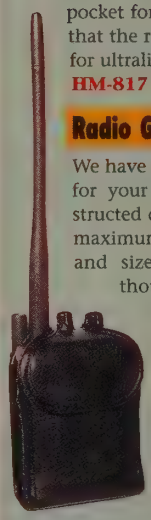
FT-817 Worldpouch

Designed specifically for the **FT-817**, the WorldPouch begs you to bring this extremely versatile radio and all of its accessories out into the field with ease. The rugged nylon fanny pack is designed for comfort and provides easy access to your radio through the zippered radio pouch. The fanny pack has two roomy accessory pockets, and there are multiple nylon loops and tie downs to secure your extra antennas, coax and any other necessities of the moment.

The world pouch is well padded, has a built-in antenna pocket and a pocket for a battery (not included) for extended talk time in the field. One of the best features is that the radio pouch can also be removed from the fanny pack and will clip easily onto your belt for ultralight travel when desired.

HM-817..... **$73.99**

Radio Glove



We have designed these pouches specifically for your radios. Their sleek profiles, constructed of **fine glove quality leather**, offer maximum protection without adding bulk and size to your mini-handheld. We've thought of all the little details that you've been wishing for, from the sturdy leather covered belt clip, to a pocket to stash the VX-5's extra antenna. **Find your radio model in the chart below to order the Radio Glove for your handheld.**

All Radio Gloves..... **$19.99**

HI-61..... Closeout **$6.99**

Radio Model	Part#
ADI	
AT-201/401HP	HI-61
PR-222/460/52	HI-6
Alinco	
DJ-C1/C4/C5T	HI-D1
DJ-S11T	HI-6
DJ-S41T/S46	HI-6
DJ-V5T	HI-6
DJ-X2T	HI-D1
AOR	
AR-16B	HI-61
Cherokee	
FFR-465	HI-5X
FR-460	HI-D1
Garmin	
e-TREX/Summit	HI-6
Icom	
IC-4008A/M	HI-6
IC-Q7/R2	HI-5X
IC-T81A	HI-6
IC-T8A	HI-6
Kenwood	
UBZ-AL14BK	HI-6
UBZ-LF14BK	HI-5X
UBZ-LH14BK	HI-6

Radio Model	Part#
Motorola	
FR-50/60	HI-6
TA-101	HI-5X
Radio Shack	
21-1813	HI-6
21-1815	HI-D1
21-1820/1821	HI-5X
21-1826	HI-5X
21-1828/1829	HI-5X
HTX-200/400	HI-5X
HTX-245	HI-6
Standard	
C-108A	HI-D1
C-508A	HI-D1
C-510A	HI-6
Yaesu	
FT-11R	HI-5X
FT-50RD/41B	HI-6
FT-10	HI-61
VX-110	HI-61
VX-150	HI-61
VX-1R	HI-D1
VX-5R	HI-51
VXA-100	HI-6

WorldPackII Backpack – NEW & IMPROVED

Now fits all modern mobile radios. Transport your rig easily and safely while traveling. Small enough to qualify as carry-on luggage, or fits comfortably on your back. Clever radio elevator to adjust radio height. Constructed of laminated heavy-duty black nylon with 1/4" foam padding with more tie down points to secure your gear. No more fluorescent green lacings – we've updated the look ewith a sharp blue accent. Separate lower compartment for power supply or rechargeable battery with pass through holes for wiring. Comfortable body contoured mesh straps with webbing loops to attach handheld HT or GPS in sky view position. Two antenna pockets to secure multiple elements with tie downs and antenna sleeve to support them. Pocket in the lid to secure your microphone and act as a wind cover. 17"h x 8"w x 3"d.

HMP-II..... **$67.99**

WorldPack Rechargeable Power Kit

Designed to fit perfectly within the WorldPack. **8AH rechargeable gel cell** power supply with labeled wire harness, female cigarette lighter plug, DC outlet and charger. Choice of two charger rates. Won't overcharge. Sold as an accessory to the WorldPack.

HPP-8A 2-stage, recharges overnight..... **$73.99**

HP-8AF Fast 2-stage charger will recharge from a full discharged state in 2.5 hours **$129.99**

AES

OAK ON AIR or **BLACK ON AIR** **Illuminated Station Sign** When actuated, the nearly 2" letters shine via six, noise free, replaceable, incandescent lamps. When not actuated, the letters are nearly invisible. Internal printed wiring board contains electronic "Smart Sense" circuit to remotely trigger the lamps on transmit by shorting or applying 10-14V to the circuit. Solid oak cabinet • Available in natural oak or black finish • Works with any radio • 13.8 VDC operation • AC wall cube power supply • RCA cord and diode adapter • Recessed rear connectors for flush wall mount ..... ea. **$69.99**

VANCO™

P-212 **2-Outlet Cigarette Plug Adapter** *(left)* Use two 12V accessories from 1 outlet..... **$4.99**

P-212B **Dual Cigarette Socket** *(top right)* Enables two 12 volt accessories to be used from one outlet, comes with replaceable 15 amp fuse..... **$8.99**

P-12R **2-Contact Cigarette Plug** *(bottom right)* Solder type with strain relief and grip end... **$1.99**

MFJ ENTERPRISES, INC.

CARRYING CASES

18 HamGear™ Tactical Chest Harness *(left)* Perfect for rugged use, emergency radio operators and on-the-go hams! Use it for portable hamfest use, DXpeditions, field day, biking, hiking, etc. Made of durable heavy duty twill burlap, this interwoven fabric is water resistant and will cushion blows and scrapes. Adjustable shoulder straps. Harness is firmly held in place by stretchable inter-woven elastic belt with snap hook and adjustable sliders supported by nylon straps. A 5 x 7 inch cargo pocket holds another radio, maps, etc..... **$29.99**

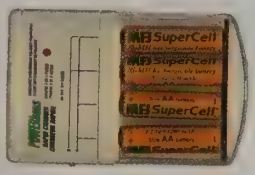
15 HamGear™ Belt Radio Holder *(right)* Durable twill burlap pocket with elastic cord and velcro closure easily stretches over any HT. Belt slides easily through 2 x 3 inch loop..... **$14.99**

BATTERIES

92AA01 Super Ni-MH "AA" batteries – they have twice the power of standard NiCads. Rated at 1300 mAh, these NiMH 1.2 volt batteries greatly extend operating time and do not exhibit the capacity reducing memory effect of NiCads. Perfect for use with the 259B/269 SWR analyzer with its built-in battery charging circuit. The 631 or 632 charger is recommended..... **$2.99**

92AA10 Super NiMH 10-pack..... **$24.99**

CHARGERS



PowerHaus™ Rapid and Trickle battery chargers Perfect for charging NiMH or NiCad rechargable batteries used in your 259B/269 SWR Analyzer or other equipment. It has a removable dust cover and an AC 12 Volt, 800 mA wall adapter is included. Reverse Polarity Protection and a bright red LED indicator that shows charging status. They Do NOT charge alkaline batteries.

631 Trickle Charger Charges 2 to 4 NiMH or NiCad "AA" batteries in 14 hours..... **$9.99**

632 Rapid Charger Quick charges 2 to 4 "AA" or "AAA" NiMH or NiCad rechargeable cells in one hour or less..... Closeout **$19.99**

633 Intelligent Charger Charges NiCad and NiMH (2 or 4) AAA, AA, C, D and (1 or 2) 9V cells • Ultra-fast, safe Constant Pulse Current charging • IC detects both +DV and -DV, and monitors the voltage level during the charging process • Discharge Mode deep conditions to correct memory effect, and can rescue dead batteries • Final trickle charge • Charging status LEDs • 120 VAC or 12 VDC operation..... **$24.99**

MAHA

RECHARGEABLE NiMH BATTERIES

4-AA-180 PowerEX AA NiMH Battery Now rated 1.2V @ 1800 mAh • Can be recharged 500-1000 times • Memory free – charge at anytime • Excellent for power intensive devices like Digital Cameras, MP-3 Players, GPS systems, etc..... (pack of 4) **$19.99**

AAA-T 1.2V, 650 mAH "AAA"..... **2.99**

9V 8.4V, 170 mAH (9V sized)..... **8.99**

MH-FNB-72 An ultra high capacity 1700mAh, 9.6V NiMH battery exclusively for the Yaesu FT-817. Includes the cable that enables recharging the pack in 3 hours using a MAHA MH-C777, MH-C777PLUS, or MH-C888 charger (all shown below)..... **$59.99**

See Price Guide for other MAHA ultra high capacity NiMH battery packs for Icom, Standard, Kenwood and Yaesu handhelds.

CHARGERS

MH-C204F Smart Rapid Charger/Conditioner Charges 2 or 4 AA/AAA NiCad/NiMH rechargeable batteries in 2-3 hours. Rejuvenate and restore dead batteries. 110V operation or can be used on a 12V power supply and in a car with the optional car kit . **$24.99**

MHS-DC-124 Cigarette adapter car kit..... **$5.99**

MH-C888 Universal Drop-In Rapid Charger/Conditioner Special FLEX negative pulse feature prevents crystallization of 4.8 to 12V NiMH/ NiCad 2-way radio battery packs. Deep-conditioning feature allows 3 consecutive charge and discharges. Built-in switching AC power supply, for home, office and 12V portable use..... **$59.99**

MH-C777 Universal Charger/Conditioner Charge nearly any type of 4.8V to 12V NiCad or NiMH battery pack. Conditioning feature "exercises" batteries to improve capacity, and in some cases can rejuvenate a dead pack. 110 and 12V operation. Car kit is included..... **$49.99**

MH-C777 PLUS II Smart Universal Charger and Analyzer/Conditioner Similar to the MH-C777, but charges 1.2V to 14.4V NiMH or NiCad and 3.6V to 14.4V lithium types. Built-in circuitry with LCD status display automatically senses the battery voltage and takes over the charging sequences. Includes an external 110V switching power supply and 12V cord with cigarette lighter for vehicle..... **$89.99**

NCG COMPANY

Power Pocket Portable power for emergencies, hamfests, hiking, etc. The 12V @ 2A/hour sealed lead-acid rechargeable battery provides up to 6X longer talk time than standard packs. Recharges completely in 6-8 hours, with supplied charger. Partial discharges can be recharged to 100% without memory effect. Radio conveniently plugs into included female adapter socket. Compact carrying case with belt loop and shoulder strap. 3.5"w x 1"d x 6.5"h, 30 oz..... **$66.99**

Palomar Engineers

VLF CONVERTERS

Receives and converts 10kHz-500kHz (VLF) to tune on the 80M band. 2 models tune this low range on either a general coverage receiver or Ham band transceiver. Uses 9V battery. 2"h x 4.25"w x 5"d.

VLF-A Use with Ham band transceiver.... **$99.99**

VLF-S Use with general coverage receiver. **$99.99**

Q-VIEW QSL CARD HOLDERS

Proudly display your favorite QSL cards in these 12" x 40" clear plastic hanging holders. Each holds 20 3.5" x 5.5" cards. Open at center to receive cards easily. Pack of three (displays 60 cards)..... **$18.99**

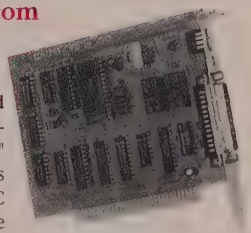
VECTRONICS

Electronic Kits Each kit features a professional quality epoxy glass PC board with solder mask and screen printed component legend, step-by-step manual and high quality components. • 40M receiver • Crystal radio • 40M CW transmitter • AM radio transmitter • TV transmitter • 2M preamp • CW keyer • Battery conditioner • FM broadcast SCA decoder • SSB audio filter • Tunable SSB/CW audio filter ..... **See Price Guide**

UM Unified Microsystems

ums@nconnect.com

CONTEST CARD

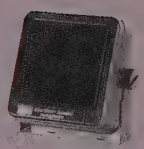


W9XT Contest Card for IBM™ & PC Compatible A non-volatile 5" x 4.5" card that plugs into a single 8-bit PC slot and provides voice recording, playback and CW keying. Stores a total 60 seconds of voice audio divided into four 15 second messages. Samples at 8 kHz for high quality and natural sound. Does not use any disk space. For CW, the card frees up the PC port, and a relay allows operation with positive or negative keying. Works with all rigs and is compatible with most popular logging programs..... **$149.99**

CCC-4 or **CCC-8 Contest Card Cable Semi-kit** Wired and tested except for connectors to mic and transmitter. Includes 6 ft. shielded cable, CW keying line and record switch (4 or 8-pin)..... ea. **$44.99**

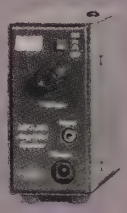
MFJ ENTERPRISES, INC.

SPEAKERS



281 ClearTone™ Communications Speaker Features a 3" *Mylar* cone speaker mounted in a well-designed baffle. Improves speech intelligibility in the 600-4000Hz range while reducing undesirable noise, static & hum. 3.75" x 3"x 2.25"..... **$12.99**

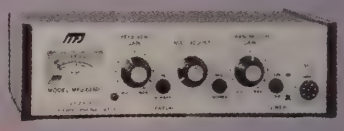
382 Deluxe *ClearTone*™ 1W Amplified Speaker Excellent for QRPers, base station HTs or rigs requiring more volume. A quality 3" speaker provides powerful audio – barely audible to high. All metal cabinet, rubber feet and vinyl clad cover. Uses 9V battery (not included) or 110V AC with optional adapter. Connect-ing cable included. 3.5"h x 1.75"w x 4.5"d..... **$39.99**



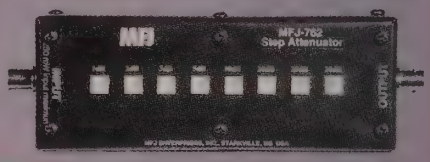
OTHER ACCESSORIES

890 DX Beacon Monitor Use as an aid to check band conditions worldwide in just three minutes. It requires no connection to a transceiver. The beacon monitor is a stand alone timing device using a microprocessor and built-in WWVB atomic clock to keep track of the beacon activation sequence. LED indicators positioned across a world map show which of the 18 beacons is active at any given time. Storing the beacon frequencies in transceiver memory allows quick switching as one listens for beacon transmissions. When a beacon is heard on any of the frequencies, that band is open to the location indicated by the corresponding LED. • Requires 12VDC or 110VAC with the optional MFJ-1312D • 6.75"w x 5.25"h x 3"d **$99.99**

616 Speech Intelligibility Enhancer™ Provides approximately 20dB audio frequency boost or cut to four overlapping octave ranges centered at 300, 600, 1200 and 2400Hz. Improves ability to hear and understand SSB, FM, AM, CW QSOs by adjusting response levels to match hearing response for best clarity, then equalizing perceived loudness to each ear. Built-in dual, 2.5W, audio amps; front panel jack; speaker on/off switch; 2 selectable transceiver in-puts; bypass switch. Use with rig or PA system. 10"w x 2.5"h x 6"d, requires 12 VDC..... **$159.99**



624D Deluxe Hybrid Phone Patch Interfaces a phone line with a rig for running phone patches. Jumper selectable for all Kenwood, Icom, Yaesu and Alinco transceivers using an 8-pin microphone connector. Adapts to work with virtually any rig. Uses 12VDC, 9V battery or 110VAC with AC adapter. 8"x 2"h x 6" **$119.99**



762 Step Attenuator Provides push-button selection of up to 81dB attenuation in 1dB steps • Excellent performance up to 170 MHz, usable to 500 MHz • 50Ω, 250 mW maximum input • BNC connectors with BNC-to-SO-239 adapters included • All metal cabinet, 6.5"w x 2.5"h x 1.5"d . **$69.99**

AOR

TDF-370 Multi-Media Terminal with DSP Listen to amazingly clear audio, transmit and receive PSK31 and RTTY, apply potent filtering and hear "weak ones" others may miss. Digital modes wthout a PC! • Use powerful DSP noise reduction and filtering, including Fast Fourier Transform. Auto-notch function • Enhance audio reception of SSB and CW signals • Monitor SSB and CW signals in derived "stereo" • Decode and display PSK31 or RTTY, on the LCD • Enhance transmitted audio with 8 channels of microphone equalization • Digital Voice Recorder • Receive SSTV 56.7kHz (PC and software needed) • 2 selectable front panel inputs • Six outputs: phone, stereo headphones (included) internal or external speaker, mic, PTT and COM (RS-232C RTTY, PSK31, 9600 bps, SSTV-56.7kHz) • Requires 4 AA alkalines, NiCads or NiMHs or regulated external 9-15 VDC supply • 3.3"h x 4.3"w x 6.2"d, 12.3 oz... **$329.99**

WEST MOUNTAIN RADIO

RIGrunner

RR/4012/C Intelligent DC Power Panel Neatly distributes 12V, up to 40A, from a power supply or battery to your transceivers and accessories. Perfect for home, mobile and portable applications. Has a 12V input connection fused at 40A and 12 pair of outlets supplied with an assortment of standard automotive fuses – 25, 10, 5 and 1A. LED "open" indicators on every fuse. LED voltage monitor indicates normal voltage, LEDs and audio alert for over and undervoltage conditions. Includes a 6' DC cable and 12 pair of *Anderson Powerpole* crimp-solder connectors. 11.8"w x 2.7"h x 1"d.... **$109.99**

CR/TOOL Crimper/Wire Cutter Handy for installing *RIGrunner* connectors. Hardened steel, 8 in. length for high leverage, comfortable plastic grip..... **$9.99**

C30/PK/12 Extra 30A powerpole connectors..... 12 pair **$10.99**

GE

72887 SUPERADIO III™ High Performance, Long Range AM/FM Portable Radio Long Range Reception: • Tuned RF stages on both AM and FM • 8" FM swivel whip antenna • 7.875" AM ferrite rod antenna. Station Selectivity and Separation: • Ceramic IF filter, plus 3 IF tuned circuits on FM • 4 IF tuned circuits on AM • Selectable normal or wide AM • Switchable AFC • Precision vernier tuning. Best Sound Quality: • 6.5" woofer, plus 2" tweeter • Separate bass and treble controls • Volume plus loudness circuitry to boost bass response at low volume levels. Other features: • Headphone jack • AM-FM external antenna terminals • Operates on AC power or 6 D-cells • Outstanding sound quality • Fold down carry handle • Rugged metal speaker grille • 12.75"w x 9"h x 3.25"d, 5 lbs..... **$59.99**

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

SIRENS & HORNS

VS-2 Emergency Vehicle Siren Designed for the volunteer fireman, a quality-built wail-yelp alarm that delivers big sound performance (120dBa sound level at 4 ft.). Frequency range is 600 to 1200Hz. It is pre-wired with a 3-position switch (Yelp-Off-Wail). High efficiency waterproof horn speaker. Also includes 10 ft. cable, mounting bracket and hardware. 12VDC @ 1.5A, 2.7 lbs **$89.99**

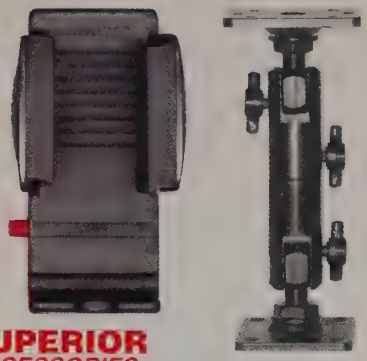
VS-2LS Siren–Light Combo A one-unit siren and yelp alarm, revolving halogen light and window mount. Fits all cars, slides on top of car window and plugs into cigarette lighter. The power plug contains an "on" LED and three position switch to select Yelp, Off or Wail modes. 12 VDC @ 5A. Specify AMBER, BLUE or RED light ..... ea. **$299.99**

VS-3 Vehicle P/A and Airhorn w/Rebroadcast A big, powerful airhorn sound with 4 different sounds (no siren) calls attention to your vehicle. Delivers 120dBa level at 4 ft. Locking down the microphone with the supplied rubber band, you can monitor sound from a mobile rig, scanner, etc. via the speaker outside. Includes horn speaker, microphone, electronic center, 10 ft. cable, mounting bracket and hardware. 12 VDC @ 1.5A..... **$129.99**

VS-4 P/A Emergency Vehicle Siren Contains P/A, rebroadcast, wail, yelp, pulse and airhorn. P/A override features, plus volume control of all siren modes. Restricts output when operating in people places. Includes horn speaker, microphone, electronic center (3 x 3.5 x 2 in.), 10 ft. cable, mounting bracket and hardware. 12V DC @ 1.5A.... **$139.99**

Emerson

RP-103 Multi-Tool 12-function, stainless steel with unique rubberized handle. Folds to 4". • Pliers with versatile serrated jaw • Regular and Phillips screwdrivers • Knife blade • Scissors • Nail file and pick • Bottle opener scraper • Wire stripper • Lanyard attachment and key ring..... **$6.99**



SUPERIOR *ACCESSORIES*

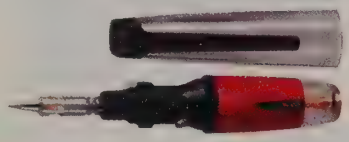
18640 Universal Phone HT/GPS Holder *(left)* Keeps your phone, HT or GPS at your fingertips in your vehicle. Press the red button on side of cradle to open the rubber padded grips. Insert unit, squeeze grips and a ratcheting action adjusts to safely hold units 1.25 to 2.5" wide. Press the button again for quick release. 4.875" tall, attaches to a mount with screws provided..... **$14.99**

HOU CPM-310 *(right)* 6" pedestal..... **$14.99**

ISO TIP

WAHL Clipper Corporation

7740 Cordless Soldering Iron Provides tip performance up to 50 watts and over 700°. Contains premium NiCad rechargeable battery for high-rate charging; a partially discharged unit will return to full capacity within 1 to 2 hours, with a complete recharge in 3 to 4.5 hours. Replaceable battery and worklight. Comes with recharging stand, fine and heavy tips **$47.99**



7971 SolderPro 50 Usable as a soldering iron, torch, hot knife and heat tool using optional interchangeable tips • Heats up from to 410°F to 750°F within 10 seconds • Runs up to 30 minutes • No electrical current • Easy refill, powered by standard cigarette lighter butane (not included)..... **$19.99**

7974 SolderPro 70 Usable as a portable soldering iron, torch, hot knife and heat tool using optional interchangeable tips • Heats up from 410°F to 850°F within 10 seconds • Runs up to 120 minutes • No electrical current • Easy refill, powered by standard lighter butane (not included) **$27.99**

We accept I.M.P.A.C.® Government Credit Cards

SOLDER EQUIPMENT

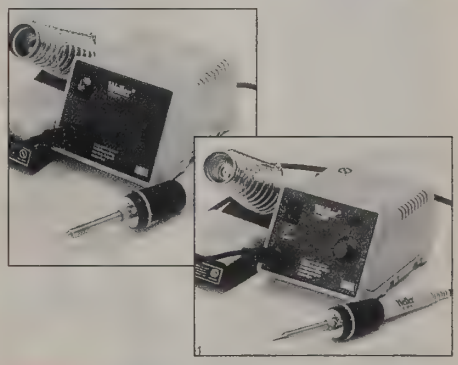
W-60P 60W Pencil-Type Soldering Iron *(left)* For most circuit work. Supplied with 0.0625" 700°F screwdriver tip. 7.5", 2.5 oz., 6' cord, 120V **$64.99**

WP-25 25W Pencil-Type Soldering Iron For work on delicate electronics. 750°F tip temperature. 7.875" long, 1.75 oz., 4' cord, 120V AC.... **$34.99**

WSTA3 Pyropen® Butane Soldering Iron *(right w/case)* Light-weight and completely portable. Operates up to three hours on a charge of regular cigarette lighter butane (not included). Soldering temperature control is adjustable from 392° to 932°F, with a very fast heat-up time. It's ready to solder in just 30-seconds! Supplied with tips for soldering, hot air (1202°F), and brazing..... **$99.99**

WST2 Pyropen® Jr. *(middle)* Portable mini butane powered soldering iron. Recharges in seconds from a regular cigarette lighter butane (not included). Soldering temperature is adjustable from 392° to 842°F. Also, hot blow feature (806°F) and torch feature (2372°F). Has handy pocket clip..... **$89.99**

7200PK Multi-purpose Soldering Gun Compact, lightweight, 75 watts for bigger work. Handles connectors and almost any other heavier soldering job. The flat, self-supporting back acts as a convenient rest when not in use. With carrying case, extra tip and solder. 120VAC..... **$29.99**



WTCPT Controlled Output Soldering Station *(left)* This pencil iron is safe for soldering ICs. Power unit with unitized on-off rocker switch with indicator light. Storage tray holds extra tip and cleaning sponge..... **$119.99**

EC-1002-1 Compact Soldering Station *(right)* Soldering pencil stand connects to right or left side of unit. Variable temperature, indicator light, self feeding reservoir with cleaning sponge. Tray stores extra temperature sensing tips..... **$199.99**

Rediscover *Your* History

As we roam the desert looking for points of interest, most of us miss a golden opportunity to find items from the past. There are millions of pieces of history still buried in the Southwestern Deserts -- just out of eyesight, but not out of the range of a metal detector . . . Not all items of history are worth a lot of money, but they can have interest value nonetheless.

During the past 20 years, I've found coins, toys, rings, watches and a variety of artifacts . . . I find that when I am metal detecting for items of history, I get the same thrill finding a mule shoe or old tin cup as I do finding an 1872 half-dollar.

"Discovering the Past with Metal Detectors"
– Joseph Johanek

BOUNTY HUNTER
Rediscover Your World

The **Land Star**™ packs more features than other costly detectors. Includes a BOUNTY D-Tech™ open-face search coil, advanced microprocessor electronics, 3-tone discrimination and Ground Trac® retune. A multi-function LCD & touchpad control make it equally at home relic hunting, coin shooting, or gold prospecting. Set the notch to reject items, or let "Auto Notch" detect coins 12" deep. $349.99

Newcomers to treasure hunting should not be shortchanged when it comes to features – or quality. That's why there's the **Fast Tracker**™. It offers 7" BOUNTY D-Tech™ search coil (adjustable angle), dual-tone audio discrimination, motion all-metals mode, auto ground balance, low-battery alert, built-in speaker, headphone jack, and lightweight S-rod comfort-grip handle with stand. $99.99

Treasures missed by generations won't escape the **Sharp Shooter II**™. Comes with digital LCD readout, touchpad control, and interchangeable BOUNTY D-Tech™ search coil. Also features 3-tone audio discrimination, selectable auto/manual notch level, auto ground balance, battery indicator, S-rod comfort-grip handle with stand, headphone jack, and built-in speaker. $279.99

The optimum combination of power, ease-of-use, affordability, and big finds – every time: the Bounty Hunter **Tracker IV**™. Built with a fully-submersible 8" BOUNTY D-Tech™ search coil, sensitivity meter, built-in speaker, headphone jack and battery indicator. Tracker IV features 3 different user-adjustable operating modes: Motion All-Metals Mode, Full Discrimination, and Tone Discrimination. $129.99

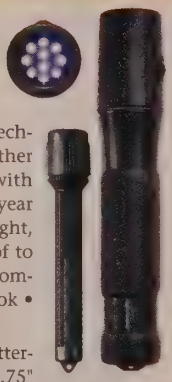
Offering high-end features for the serious detectorist, the **Land Ranger** is designed for every metal detecting application at a pro level. Touchpads keep all modes at quick and easy access while the LCD emits a constant reference source maximizing every possibility for finding treasure. It features an 8" waterproof, interchangeable search coil and SmartTrac® ground control. $449.99

The Bounty Hunter **Quick Draw II**™ metal detector packs powerful features, like an advanced Zilog Z-86 circuit, for superior discrimination and control. Also includes waterproof BOUNTY D-Tech™ search coil, 3 levels of iron discrimination, both target ID and depth readout, sensitivity control, full discrimination, auto and variable notch, and low battery indicator. Detects up to 10" deep – larger objects up to 5'. $224.99

Recover more relics and valuables from the past then ever before. The **Time Ranger**'s powerful circuitry and smooth operation combine to deliver absolute performance. The innovative Sniff-Mode can be used in specialized applications when rejection/acceptance of a particular object is desired. $549.99

NEW

Lightwave



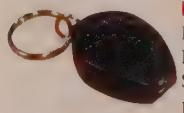
Modern flashlights using LED technology. Lights an area like no other flashlight! 25-day batteries (with diminishing brightness) • 11-year (typical), solid-state LED's • Bright, diffused white light • Waterproof to 2' • Shock-proof, high impact composite case with lanyard and hook • 3 year warranty, including LEDs

LW-2000 *(left)* 3 AA alkaline batteries (included) power 4 LEDs. 7.75" long, 1.25" diameter **$29.99**

LW-3000 Similar to LW4000, but smaller. 3 C alkalines power 7 LEDs 8.75" long, 1.625" dia... **$49.99**

LW-4000 *(right & end view)* 3 D alkalines power 10 LEDs. 10.75" long, 2" diameter..... **$59.99**

LW-HT Illuminator™ **Head Torch** 1"-wide adjustable strapping secures light to the head. Up/down adjustable. 4 high-intensity LEDs powered by 3 AA batteries (not included) provide super-bright light visible for over one mile, over 330 hours **$39.99**



LW-PB PocketBright™ **Flashlight** Includes key ring, neck lanyard and velcro patches. Single, high-intensity LED, powered by 2 included Lithium batteries, provides over 50 hours of light that can be seen across a full-sized room **$19.99**

YAESU

FTV-1000 200W 50MHz **Transverter for the FT-1000MP MK V** Utilizes the same high-performance power MOS FET transistors as are used in the FT-1000MP MK V. The PA stage operates at 30V DC, provided by the MK V power supply. The output devices, capable of 300W PEP, are run well below their max. ratings for high reliability. Also, the thermostatically-controlled cross-flow cooling fan keeps operation cool.

The exclusive Class-A bias capability is now extended to the FTV-1000 50MHz operation giving you the cleanest SSB signal on the band! It also features a High Dynamic Range Receiver Front End, utilizing a high-intercept design with JFETs in a double balanced mixer. Driving the mixer is a low-noise-figure MOSFET preamp, with two gain selections available. For local work, select IPO, which bypasses the internal preamp for direct feed to the mixer. A 12dB input attenuator is also available when working with extremely strong local signals.

The stylish, logically-designed front panel makes operation a breeze! High quality rocker switches control all functions, with convenient LED indicators. Its superb ergonomics are a perfect complement to the FT-1000MP MK V..... **$899.99**

BOUNTY HUNTER ACCESSORIES

CARRY BAG Padded Carrying Case Protects metal detectors from the elements, in storage, and in transit. Made of rugged, double-stitched, nylon construction. Includes handy outside zip-pocket for extra batteries to small accessories..... **$29.99**

10" COIL 10-inch Magnum Coil Adds extra depth for relic and cache hunting **$59.99**

FM REPEATERS

• 2–25W 100% duty cycle • 8 channels – PLL synthesizer • Optional programming kit • CTCSS enc/decode • Programmable features: Frequency, CTCSS, Hi/Low power, Hang timer, Time-out timer • Wall mount or optional 19" rack mounting kit • DB-25 connector and 8-pin modular jack • Modular card style unit construction • Optional Comm Spec ID'er • 14.75" x 10.75" x 4.375", 25 lbs.

VXR-5000UCDC 440MHz, DC..... **$1199.99**
VXR-5000U/TC 440MHz, AC ps..... **1399.99**
VXR-5000VADC 2m, 12VDC..... **1199.99**
VXR-5000V/TA 2m, AC supply..... **1399.99**

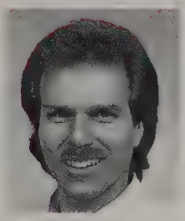
Our Experienced Sales Staff at your Service...

MILWAUKEE, WI 414-358-0333 • 1-800-558-0411

CARL W9CLH

RICHARD K9RWE

GARY L. KA9YTB


JEFF N9EDQ

JIM WJ9P

MIKE N9LBQ
SALES MANAGER

PAUL W9KHO

RAY W9KHH

TOM W9TJP

CLEVELAND, OH 440-585-7388 • 1-800-321-3594

ALEX K8EUR

BEN AA8AH
STORE MANAGER

BRUCE KE8TI

DAVE WB8BAG

PHILLIP KB8GA

ROD WN8R

LAS VEGAS, NV 702-647-3114 • 1-800-634-6227

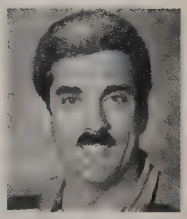
ART K7ZE

CHUCK K3CEC

JIM WD6FYX

LUKE KK7XX
STORE MANAGER

SQUEAK AD7K


TOM W7TAA

ORLANDO, FL 407-894-3238 • 1-800-327-1917

EDDIE KD4RAZ
Hablo español

ERNIE K1HO

GRANT K4IQW
STORE MANAGER

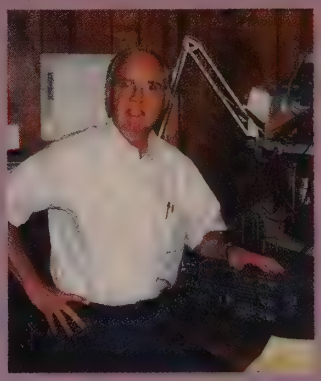
LUIS WP4JSR
Hablo español

GEORGE K2WO

RODRIGO TI2WD
Hablo español

CALL 414-358-4087 for SERVICE

Unlike some dealers, when you purchase a New radio from us our Service Department is able to provide you with outstanding technical support. Our technicians have decades of cumulative experience in the Ham Radio service field.



Miles, K9HMQ (Service Mgr.)

STEVE, N9SO

BOB, WX9Z

Warranty Service

New radios purchased from AES within the manufacturers' warranty period will be repaired at no charge by AES or the manufacturer. Please refer to manufacturers' warranty information when unsure of warranty time periods.

Out-Of-Warranty, Late Model Equipment

Whether the item was purchased from us or not, we will attempt to service it, provided service parts are still available. Before shipping your out-of-warranty items, arrangements must be made by phoning the Milwaukee Service Department at 414-358-4087

Shipping Equipment for Service

Before sending your item, make sure you contact the nearest AES location and find out the time frame for repairs. If you are concerned about time limitations, this will help you determine where to send the repair and how long your radio will be out.

Always include the following along with the item being shipped:

- a detailed note describing the problem(s)
- your address, day-time phone number, and email address
- a copy of the original invoice, if item is still under warranty
- the method of payment (see Policies page for options)

After packing your item securely in a box with ample packing materials (foam, styrofoam spacers, etc.), mark the shipping label "Attn: Service", and always adequately insure your items.

Labor Rates

- $60 per hour for Out-Of-Warranty Service
- $80 minimum on HF/VHF Base Stations
- $60 minimum on VHF Mobiles and Handheld Transceivers
- Rates do not include Parts, Return Shipping or Handling Charge

Shipping Information

FLAT RATE SHIPPING via UPS Ground Method in the Lower 48 States

AMOUNT OF ORDER	SHIPPING CHARGES
Up to $100.00	$4.99
$100.01 to $500.00	$9.99
$500.01 to $1,499.99	$14.99
$1500.00 & UP	PREPAID

Flat Rate Does Not Apply To Drop Shipments

Flat Rate Advantage – No Penalty for Number of Cartons or Weight!

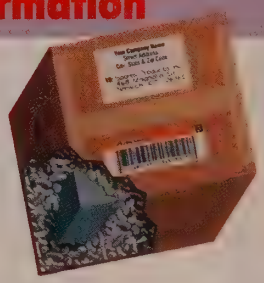
EXCEPTIONS TO RATES ABOVE

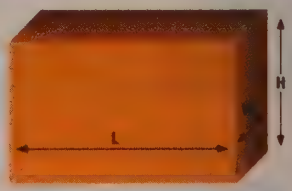
Optional UPS methods (Red, Blue & Orange) and any USPS methods are charged at Regular Rates without any credit for UPS ground rates. COD's are not accepted for these other methods.

Shipments to APO/FPO go via Priority Mail. Puerto Rico, Alaska and Hawaii can be shipped to via Priority Mail or Blue Label. Orders exceeding UPS or USPS weight, size or value limits will be shipped via Truck or Air Freight collect. Shipping charges taxable in WI, FL & NV.

Please see Policies Page for complete information.

TRACKING NUMBERS for out-bound shipments are gladly given. Call our local number, 414-358-0333, and ask for our Tracking Number Service.





$$\frac{LxWxH}{194} = \text{Dimensional Weight}$$

Packing

When returning heavy, delicate, and expensive equipment, it must be carefully packed in order to avoid damage caused by normal transportation dynamics. In other words, if you put your FT-1000D, TS-940S or AL-1500 in a box with little or no packing beneath it, chances are it will sustain some damage. When contents of packages are damaged, claims will be paid only if the carton and packing meet standards set in the International Safe Transit Association Procedure 1 and 1-A. These standards simply state that cartons and packing should provide reasonable protection to their contents. Ideally, contents should be suspended in the center of the carton by the packing material, no less than three inches on all sides for heavy items. For items heavier than 20 pounds, three inches of foam or crumpled paper should be used instead of polystyrene edge protectors.

Include information

When you send your well-packed parcel to AES for repair, return or trade-in, be sure to include a letter inside the package. Do not rely on information written or taped on the outside of the carton. This information can be destroyed by moisture or abrasion. In the letter, put your call, name, address, phone and reason for return. You may also want to include your e-mail address and times you can be reached via telephone.

Dim Weight

When calculating the cost of air shipments, whether Fed-Ex, UPS or other carrier, remember that they use dimensional weight. Dim weights are used to insure adequate revenues per cubic foot of cargo plane space. The formula used to calculate dimensional weight is: L x W x H divided by 194. This means a 12" x 13" x 16" box that weighs six pounds will be sent at the twelve pound rate when an air service is used.

AMATEUR ELECTRONIC SUPPLY® 5710 W. Good Hope Road • Milwaukee, WI 53223
Local: (414) 358-0333 • *Toll Free:* 1-800-558-0411 • *24-hour FAX:* (414) 358-3337 • *On-line:* www.aesham.com • *E-Mail:* info@aesham.com

Salesperson's Name _____
Account No. _____ Date _____
Name _____ Call _____
Address _____
City/State _____ Zip _____
E-Mail Address: _____ Fax: _____
Phone No. (Home) ( ) _____ Hours: _____
Phone No. (Work) ( ) _____ Hours: _____

SHIP TO *(If other than at left):*
_____
_____
_____
_____

IF YOU HAVE MOVED since your last order, please show your old address:
_____
_____

QTY.	MANUFACTURER	PART OR MODEL # • DESCRIPTION	PRICE EACH	TOTAL
			TOTAL AMOUNT OF ORDER	$

LINE 1 — TRADE-IN Allowance (if any) *Enclose mail quotation or reference telephone quote & list Trade-in items on line provided below.*

IMPORTANT! Persons having a Trade-in must check one of the following: (Also, see more important information on previous page and on Policies page.)
- ❑ Hold this order until you receive and approve my trade-in.
- ❑ Payment in-full enclosed. Refund allowance when my trade-in is received and approved.
- ❑ Charge the FULL AMOUNT of my order to my Charge Card and Credit my trade-in allowance when my trade-in is received and approved.

-

LINE 2 — Shipping Charges We ship via **best ground method** at *flat-rate* shown on previous page, except to APO/FPO made via Priority Mail.
For Faster Service select one of the following: (These methods are not flat-rated so allow for increased shipping charges - no flat-rate credit.)
❑ UPS Next Day Air (Red) ❑ 2nd Day Air (Blue) ❑ 3-Day Select (Orange) ❑ Federal Express ❑ RPS ❑ Express Mail ❑ Priority Mail

+ *Shipping Charges are taxable in Wisconsin, Florida & Nevada*

LINE 3 — Sales Tax: ❑ WI- 5.6%, ❑ FL- 6%, ❑ NV- 7.25%, ❑ OH-5.75% *For Ohio & Nevada figure tax before subtracting trade-in allowance*

+

LINE 4 — Credits: AES Refund Checks, Gift Certificates or Manufacturer's Coupons (if any)

-

CREDIT CARD INFORMATION

We accept I.M.P.A.C.® Government Credit Cards

Account Number

Cardholder's Name CARD EXPIRES

Cardholder's Signature Date

LINE 5 — Balance $

LINE 6 — Due AES from previous order (if any) +

TOTAL AMOUNT DUE

Choose payment method from below: (Fill in information at right, if applicable)
❑ Bank transfer ❑ Certified check ❑ Personal check ❑ Money order
DO NOT MAIL CURRENCY. Send bank check or money order. Personal check may delay shipping until it clears our bank. Attach remittance to top of order blank.

❑ Credit card (VISA, MasterCard, Discover, American Express, IMPAC)
❑ COD $7.00 fee per package. *Money Order or Certified Check Only.*
MINIMUM $20.00 COD ORDER – NO AIR OR PARCEL POST COD's

$

AMOUNT ENCLOSED -

BALANCE DUE (IF ANY) $

BANK TRANSFER INFO.

MILWAUKEE, WI M&I Marshall & Ilsley Bank, Milwaukee, WI. ABA #075000051. Further credit to M&I Northern Bank,credit account #8837510 in the name of Amateur Electronic Supply. **WICKLIFFE, OH** Key Bank, Wickliffe Branch, 29310 Euclid Avenue; Wickliffe, OH 44092. Routing #041001039 for credit to: Amateur Electronic Supply Account #350341002268. **ORLANDO, FL** Bank of America, Fashion Square Branch, Orlando, FL Routing #063100277 for credit to: Amateur Electronic Supply Account #2836088068. **LAS VEGAS, NV** M&I Marshall & Ilsley Bank, Milwaukee, WI. ABA# 075000051. Further credit to M&I F.S.B. Las Vegas, credit account #19696116 in the name of Amateur Electronic Supply.

Cut along dotted line or make Photocopy

We Invite You to Visit the Nearest AES® Location

All Store Hours: Mon–Fri • 9am to 5:30pm, Saturday • 9am to 3pm

5710 W. Good Hope Rd. • 414-358-0333 • 1-800-558-0411

28940 Euclid Ave. • 440-585-7388 • 1-800-321-3594

621 Commonwealth Ave. • 407-894-3238 • 1-800-327-1917

4640 South Polaris Ave. • 702-647-3114 • 1-800-634-6227

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

COD ORDERS Minimum COD order is $20.00, shipment via UPS Ground only (no air or parcel post). The flat-rate, plus a $7.00 COD fee per package applies. Payment by money order or certified check, only.

DAMAGED ITEMS If you discover a damaged shipment, **THE CARRIER SHOULD BE NOTIFIED IMMEDIATELY**. The merchandise should not be returned to us until notified to do so by the carrier. All packaging materials must be retained including styrofoam peanuts, inner and outer cartons, labeling, etc. for inspection by the carrier or the claim may be denied. With shipments properly packaged (as all our shipments are), the ultimate responsibility for delivery in good condition rests with the carrier.

DEFECTIVE ITEMS Defective items should be returned to Amateur Electronic Supply or the manufacturer for warranty repair or replacement, at our discretion. After processing, we will return it via UPS Ground, prepaid at our expense. If you receive defective equipment, call our Customer Service Department at 414-358-4087 for instructions. Canadians please see *"Canadians Note:"* under TRADE-INS.

INTERNET ORDERS The customer may order products directly on our web site via our internet order form. If the customer does not have access to the web, but has an e-mail account, the customer may e-mail his/her order making sure the following information is included: full name, call sign (not required to order), phone number, billing address, shipping address, item(s) to be purchased (model number and manufacturer) and method of payment. If paying by credit card, we need the card number and expiration date.

PAYMENT Accepted forms of payment are electronic bank transfer, certified check, personal check, money order, credit card (VISA, MasterCard, Discover, American Express, IMPAC), or COD. The customer's choices of payment methods may depend on amount of purchase or destination of shipment.

PRICING We will pass on decreases in pricing to our customers whenever possible. Due to foreign currency fluctuations, promotions, manufacturers' specials, etc.; prices may vary, so be sure to confirm prices when ordering. All prices and specifications are subject to change without notice. **AMATEUR ELECTRONIC SUPPLY®** is not responsible for typographical errors or omissions.

REFUNDS Amounts under $5.00 are not refunded unless requested in writing to the Milwaukee headquarters within 12 months.

RETURNS In order to maintain the lowest possible prices, we do not offer a *free trial* or *evaluation period* on new equipment. If permitted, an **Authorized** return of merchandise for credit (it must be like new with all original packaging) will be subject to a **Minimum 15% Restocking Fee**. The item must be returned within **10 days** after receipt, prepaid, with a copy of the purchase invoice and a letter describing the reason for the return. No returns on antennas, towers, cable, items drop-shipped from the manufacturer, audio or video tapes, kits, books, or computer software. Canadians please see *"Canadians Note:"* under TRADE-INS.

SHIPPING Shipping charges, which include adequate insurance, are based on the Order Total at the time of the initial shipment (COD fees not included). The order amount on which charges are determined is pre-coupon and pre-tax. Cancellations on partially shipped orders will not affect the shipping charges. All back-orders from partially shipped orders are shipped PREPAID at the expense of AES® via UPS Ground Service, only.

Shipping calculations on UPS Ground method to the contiguous 48 states have been simplified by utilizing flat-rate categories. Other UPS methods (Red, Blue & Orange) and any USPS methods are charged at regular rates without any credit for UPS ground rates. CODs are not accepted for these faster methods.

Shipments to APO/FPO are via Priority Mail. Orders exceeding UPS or USPS weight, size or value limits will be shipped via Truck or Air Freight collect. Shipping charges taxable in WI, FL & NV.

To insure orders arrive quickly, AES stocks items at all four locations. Occassionally, an item will be temporarily unavailable at certain branches, due to various reasons. In this case, AES will ship the order from a location that has the needed item.

TRADE-INS Amateur Electronic Supply® accepts trade-ins on new equipment purchases, the worth of which is determined by the electrical and physical condition of the item. Estimates are given assuming the trade-in is in good electrical and physical condition. If it is not, a deduction will be made.

To facilitate a trade-in, the customer can choose one of the following: (A) Purchase the new item(s), send in the trade for evaluation, and have the trade-in amount refunded or credited. (B) Send in the trade and have the order held until the trade-in amount is determined.

When shipping trade-ins for evaluation, use a sturdy carton (double boxing is recommended) and plenty of packing material (see pg. 148). Ship PREPAID & FULLY INSURED. Do not use Bus or Parcel Post. Collect shipments will not be accepted.

AES® assumes no responsibility for damage in transit or for filing of damage claims. Canadians, inquire locally about taxes and/or customs charges before releasing your shipment.

Canadians Note: Returned equipment not originally manufactured in the U.S. will be subject to valuation and custom charges, plus broker's fees. Check customs before shipping anything to us, including new equipment for warranty repair. We will not accept any shipments from outside of the U.S. unless all fees are paid in advance.

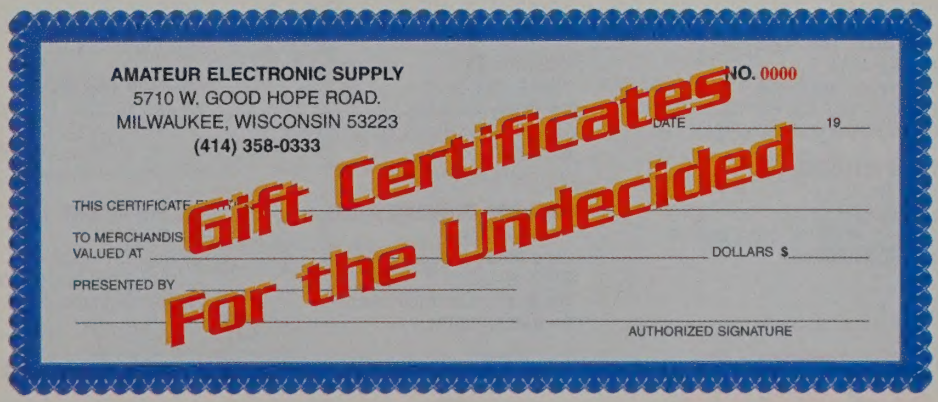
BIDS & PURCHASE ORDERS AES® accepts written and signed Purchase Orders from well rated D&B companies, military, schools, colleges, universities and federal, state, county and city Government agencies.

We welcome the chance to bid on your requirements and search the Internet daily for requests from all Government agencies. We are registered with FACNET and accept Government I.M.P.A.C.® charge cards. Net terms available to Government agencies, schools, and companies highly rated in Dunn & Bradstreet.

For more information, please contact Paul Szczerbinski, W9KHO (pauls@aesham.com) at AES® Milwaukee. Toll Free: 1-800-558-0411, Local: 414-358-0333 or Fax: 414-358-3337

Secure
www.aesham.com

Used & Demo
Equipment lists
Updated regularly on the web.
Check them out and order On-line



ALINCO/ATOC
23 S. High St.
Covington, OH 45318
937-473-2840 fax: 937-473-2862

ALPHA DELTA/OUTBACKER/KENT
P.O. Box 620
Manchester, KY 40962
606-598-2029 fax: 606-598-4413

AMERICAN RADIO RELAY LEAGUE
225 Main St.
Newington, CT 06111
860-594-0200 fax: 860-594-0303
hq@arrl.org

AMERITRON
116 Willow Rd.
Starkville, MS 39759
662-323-8211 fax: 662-323-6551

AOR U.S.A
20655 S. Western Ave. Ste. 112
Torrance, CA 90501
310-787-8615 fax: 310-787-8619

ASTRON CORPORATION
9 Autry
Irvine, CA 92618
949-458-7277 fax: 949-458-0826
www.astroncorp.com

BARKER & WILLIAMSON (B&W)
603 Cidco Road
Cocoa, FL 32926
321-639-1510 fax: 321-639-2545
www.bwantennas.com

BENCHER/ BUTTERNUT
831 N Central Ave.
Wood Dale, IL 60191
630-238-1183 fax: 630-238-1186
bencher@bencher.com

BUSHNELL
9200 Cody
Overland Park, KS 66214
913-752-3400 fax: 913-752-3550

CES WIRELESS TECHNOLOGIES CORP.
925-122 S Semoran Blvd.
Winter Park, FL 32792
407-679-9440 fax: 407-679-8110
sales@ceswireless.com

COMMUNICATIONS SPECIALISTS, INC.
426 W. Taft Ave.
Orange, CA 92865
714-998-3021 fax: 714-974-3420
www.com-spec.com

CONNECT SYSTEMS, INC.
2259 Portola Rd.
Ventura, CA 93003
805-642-7184 fax: 805-642-7271
sales@connectsystems.com

CUSHCRAFT CORPORATION
P.O Box 4680
Manchester, NH 03108
603-627-7877 fax: 603-627-1764
techsup@cushcraft.com

DAVIS INSTRUMENTS
3465 Diablo Ave.
Hayward, CA 94545
510-732-9229 fax: 510-732-9188
sales@davisnet.com

DCI DIGITAL COMMUNICATIONS, INC.
29 Hummingbird Bay
White City, SK Canada
1-800-563-5351
fax:306-781-2008
dci@dci.ca

DIAMOND ANTENNA/RF PARTS
435 S. Pacific St.
San Marcos, CA 92069
760-744-0900 fax: 744-1943
rfp@rfparts.com

GAP ANTENNA PRODUCTS, INC.
99 North Willow St.
Fellsmore, FL 32948
561-571-9922 fax: 561-571-9988
gap@gap antenna.com

GARMIN USA
1200 E. 151st. St.
Olathe, KS 66062
913-397-8200 fax: 800-801-4670

GLEN MARTIN ENGINEERING, INC.
13620 Old Hwy 40
Boonville, MO 65233
660-882-2734 fax: 660-882-7200
info@glenmartin.com

GRUNDIG
3520 Haven Ave. Unit L
Redwood City, CA 94063
650-361-1611 fax: 650-361-1724

HAL COMMUNICATIONS CORP.
P.O. Box 365
Urbana, IL 61801
217-367-7373 fax: 217-367-1701
halcomm@halcomm.com

HEIL SOUND LTD.
5800 N. Illinois
Fairview Heights, IL 62208
618-257-3000 fax: 618-257-3001
info@heilsound.com

HUSTLER
One Newtronics Place
Mineral Wells, TX 76067
940-325-1386 fax: 940-328-1409

HY-GAIN
300 Industrial Park Rd.
Starkville, MS 39759
662-323-5953 fax: 662-323-6551

INTERNATIONAL ANTENNA CORP.
PO Box 121430
Clermont, FL 34712
407-654-7111 fax: 888-268-4214

ICOM AMERICA, INC.
2380 116th Avenue N.E.
Bellevue, WA 98004
425-454-8155 fax: 425-454-1509
tech@icomamerica.com

KANTRONICS
1202 E. 23rd St.
Lawrence, KS 66046
785-842-7745 (tech) 785-842-4476
fax: 785-842-2031
service@kantronics.com

KENWOOD COMMUNICATIONS
P.O. Box 22745
Long Beach, CA 90801-5745
310-639-4200 fax: 310-537-8235
kcc-amateur@kenwoodusa.com
www.kenwood.net

KENWOOD SERVICE CENTER-WEST
13030 Alondra Blvd. #104
Cerritos, CA 90703-2257
562-483-8740 fax:562-483-8749

KENWOOD SERVICE CENTER-EAST
829 Lynnhaven Parkway, #130
Virginia Beach, VA 23452
757-340-1702 fax: 757-340-6809

L.L. GRACE (Kansas City Tracker)
P.O. Box 1345
Voorhees, NJ 08043
856-751-1018 fax: 856-751-9705
www.llgrace.com

LARSEN ANTENNAS
See – Radiall/Larsen

M2 ANTENNAS, INC.
4402 N. Selland
Fresno, CA 93722
559-432-8873 fax: 559-432-3059

MAGELLAN SYSTEMS CORP.
960 Overland Ct.
San Dimas, CA 91773
909-394-5000
fax: Cust/Service 909-394-7050

MAHA COMMUNICATIONS, INC.
545C W. Lambert Road
Brea, CA 92821
1-800-376-9992
fax: 714-985-9221
sales@maha-comm.com

MFJ ENTERPRISES
300 Industrial Park Rd.
Starkville, MS 39759
662-323-5869 fax: 662-323-6551
www.mfjenterprises.com

MIRAGE COMMUNICATIONS
921 Hwy 25 S
Starkville, MS 39759
662-323-8287 fax: 662-323-6551

NCG CO. (COMET, DAIWA, MALDOL)
1275 N. Grove St,
Anaheim, CA 92806
714-630-4541 fax: 714-630-7024
micks@cometantenna.com

NORCOMM
NorFax™ automated 24-hour
fax retrieval system: 530-477-8403

OREGON SCIENTIFIC
19861 SW 95th Pl.
Tualatin, OR 97062-7526
503-639-8883 fax: 503-684-8883

PacComm PACKET RADIO SYSTEMS
4413 N. Hesperides St.
Tampa, FL 33614-7618
813-874-2980 fax: 813-872-8696
BBS: 813-874-3078

PALOMAR ENGINEERS
P.O. Box 462222
Escondido, CA 92046
760-747-3343 fax:760-747-3346
www.Palomar-Engineers.com

PAR ELECTRONICS, INC.
P.O. Box 645
Glenville, NC 28736
828-743-1338 fax: 828-743-1219
par@parelectronics.com

PREMIER COMMUNICATIONS (ADI)
480 Apollo Ste. E
Brea, CA 92821
714-257-0300 fax: 714-257-0600
premier@adi-radio.com

RADIALL/LARSEN ANTENNA TECH.
3611 NE 112th Ave.
Vancouver, WA 98682
360-944-7551
fax:1-800-525-6749
info@radialllarsen.com

R.L. DRAKE COMPANY
230 Industrial Dr.
Franklin, OH 45005
513-746-6990 fax: 513-743-4683
sales@rldrake.com

SGC, INC.
13737 S.E. 26 St.
Bellevue, WA 98005
800-259-7331 fax: 425-746-6384
www.sgcworld.com

SMILEY ANTENNA CO INC.
408 La Cresta Heights Rd.
El Cajon, CA 92021
619-579-8916 fax:619-579-8598
bill@htantennas.com

SONY
1200 N. Arlington
Itasca, Il 60143
630-773-6000 fax: 630-773-7695

TE SYSTEMS
PO Box 25845
Los Angeles, CA 90025
310-478-0591 fax:310-473-4038

TIMES MICROWAVE SYSTEMS
358 Hall Ave
Wallingford, CT 06492
203-949-8400 fax: 203-949-8423
www.timesmicrowave.com

UNIDEN
4700 Amon Carter Blvd
Fort Worth, TX 76155
817-858-3300 fax: 817-858-3333

UNIFIED MICROSYSTEMS
3310 Bonnie Lane
Slinger, WI 53086
262-644-9036 fax: 262-644-9036
ums@nconnect.com

UNIVERSAL MANUFACTURING
43900 Groesbeck Hwy.
Clinton Township, MI 48036
586-463-2560 fax: 586-463-2964

US TOWER CORPORATION
1220 Marcin St.
Visalia, CA 93291
559-733-2438 fax: 559-733-7194
sales@ustower.com
www.USTower.com

VECTRONICS
300 Industrial Park Rd.
Starkville, MS 39759
662-323-5800 fax: 662-323-3158

VERTEX STANDARD (YAESU)
10900 Walker Street
Cypress, CA 90630
714-827-7600
yaesu@worldnet.att.net

LINKS TO VARIOUS MANUFACTURERS' SITES AT www.aesham.com • AES SERVICE 414-358-4087

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

Budding Scientist?

This feature-packed Celestron microscope is a great educational tool. It has a fully-coated optical system, with H10x and H12.5x eyepieces and 35mm 4x, 10x, 40x objectives giving powers of (40x, 100x, 400x) 10x and (50x, 125x and 500x) 12.5x. This unit uses positive click stops on the turret, a five aperture diaphragm, a planoconcave 50mm mirror, and a smooth rack and pinion focuser with a safety rack stop. 4030

$119.99

The Night Owl Generation 2+ Explorer G2™ offers any scientific hobbyist a view of the world from another's perspective. See through noctural eyes with cutting-edge night vision providing superior brightness, allowing up to an extraordinary 2,300' range of view.This model is also waterproof to survive extreme weather conditions and nautical use. NOXG2

$999.99

The most prevalent phenomenon in nature – weather, and the Oregon Scientific WMR112A cable-free weather station gives any knowledge-thirsty science fan a closer look with wireless outdoor sensors, up to 300' range and indoor touch-screen. Measure indoor and outdoor temperature and humidity and indoor barometric pressure. With optional attachments, this unit is also capable of measuring rainfall and wind speed and direction. WMR112A

$199.99

Enhance The Learning Curve

AES
More Than Amateur Radio

AES®

AMATEUR ELECTRONIC SUPPLY

- Over 44 Years in Amateur Radio
- Knowledgeable Staff
- Complete Inventories
- Competitive Pricing
- Top Trades & Quality Used Gear
- Service Department

1-800-558-0411
www.aesham.com

AMATEUR ELECTRONIC SUPPLY
5710 W. Good Hope Rd.
Milwaukee, WI 53223

CHANGE SERVICE REQUESTED

PRSRT STD
U.S POSTAGE
PAID
Permit #181
Pewaukee, WI

#BYNNCLL **AUTO**5-DIGIT 93422
#002533048# 0253304 W6FM
RON O PATTERSON
17355 WALNUT AVE 798
ATASCADERO CA 93422-6624 070
115

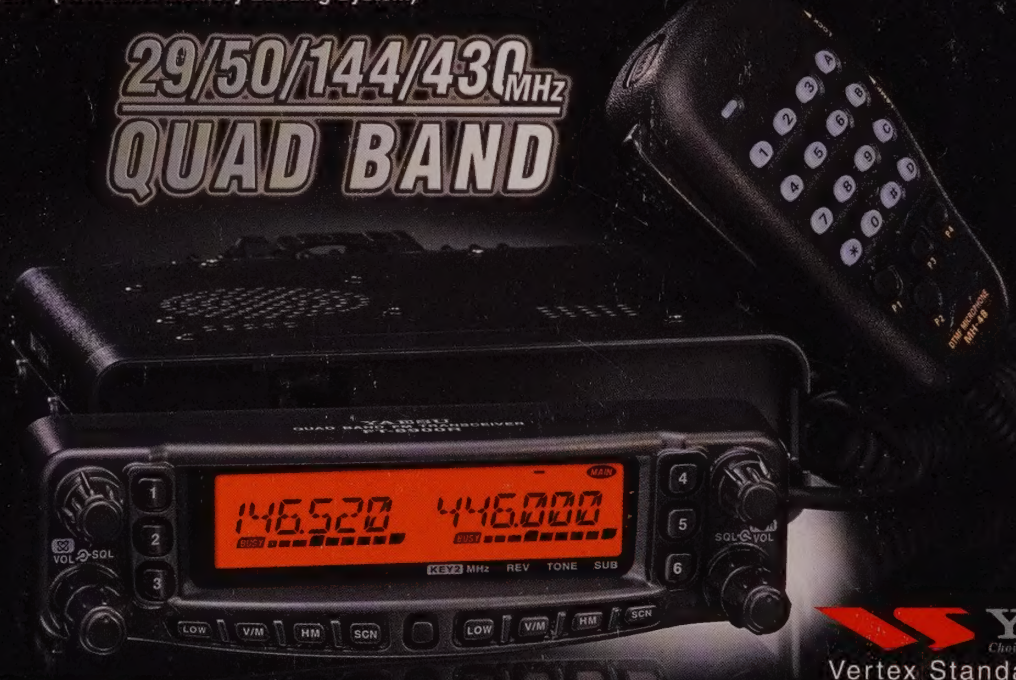
Leading the Way in FM Mobile Design... From the Engineers at Yaesu!

You'll never think about mobile radios the same way. Instead of a dual-bander, enjoy the versatility and performance of the FT-8900R Quad Bander!

Features
- 29/50/144/430 MHz FM Quad Bander
- V+U/V+V/U+U Dual Band Reception
- V+U Full Duplex Operation
- Cross-Band Repeater Operation
- Independent Dial for Each Band
- Heavy-Duty Construction
- Remote-Head Mounting Capability (requires optional YSK-8900)
- High-Power 50 W (430 MHz: 35 W) and Heavy-Duty PA Design
- User-Programmable Microphone Keys
- Huge Illuminated Display
- 50-Tone CTCSS/104-Code DCS Tone Systems
- ARTS™ (Auto-Range Transponder System)
- Smart Search™ (Automatic Memory Loading System)
- Hyper Memory (stores and recalls six complete sets of transceiver configuration data)
- Huge 800-Channel Memory Capacity
- Versatile Scanning Selections
- RF Squelch
- Internet Key for Instant Access to WIRES™ (Wide-coverage Internet Repeater Enhancement System)
- 1200/9600 bps Packet Operation

FT-8900R

29/50/144/430 MHz Quad Band FM Mobile



YAESU
Choice of the World's Top DX'ers™
Vertex Standard
US Headquarters
10900 Walker Street
Cypress, CA 90630 (714)827-7600

For the latest Yaesu news, visit us on the Internet:
http://www.vxstdusa.com

Specifications subject to change without notice. Some accessories and/or options may be standard in certain areas. Frequency coverage may differ in some countries. Check with your local Yaesu Dealer for specific details.